EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	210	(leonard.in. or farwell.in.) and thyroid	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/02/15 08:53
L2	67	(leonard.in. or farwell.in.) and (thyroid same receptor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/02/15 08:56
L3	0	(leonard-j.in. or farwell-a.in.) and (thyroid same receptor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/02/15 08:54
L4	33811	(leonard.in. or farwell.in.) not presta. in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/02/15 08:56
L5	31	4 and thyroid same receptor	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/15 09:00
L6	41	delta adj tr	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/15 09:01
L7	4	(delta adj tr) and (tr adj alpha)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/15 09:01

Welcome to DIALOG

Dialog level 05.16.01D
? b 411;set files biotech
15feb07 09:03:40 User219511 Session D675.2
$0.00 0.115 DialUnits File410
$0.00 Estimated cost File410
$0.05 TELNET
$0.05 Estimated cost this search
$0.51 Estimated total session cost 0.247 DialUnits
File 411:DIALINDEX(R)

DIALINDEX(R)
(c) 2007 Dialog

*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
You have 26 files in your file list.
(To see banners, use SHOW FILES command)
? delta and tr and alpha and 2
>>>"D" command not valid in DIALINDEX.
? s delta and tr and alpha and 2

Your SELECT statement is:
s delta and tr and alpha and 2

Items	File
27	5: Biosis Previews(R)_1969-2007/Feb W1
1	6: NTIS_1964-2007/Feb W1
2	8: Ei Compendex(R)_1884-2007/Feb W1
12	24: CSA Life Sciences Abstracts_1966-2007/Nov
68	34: SciSearch(R) Cited Ref Sci_1990-2007/Feb W2
3	71: ELSEVIER BIOBASE_1994-2007/Feb W2
9	73: EMBASE_1974-2007/Feb 14
3	94: JICST-EPlus_1985-2007/Feb W3
22	135: NewsRx Weekly Reports_1995-2007/Feb W1
1	136: BioEngineering Abstracts_1966-2007/Nov
14	144: Pascal_1973-2007/Feb W1
43	155: MEDLINE(R)_1950-2007/Feb 10
1	266: FEDRIP_2007/Jan
2	357: Derwent Biotech Res._1982-2007/Feb W2
1	370: Science_1996-1999/Jul W3
10	399: CA SEARCH(R)_1967-2007/UD=14608

16 files have one or more items; file list includes 26 files.

? save temp; b 155,5,34,71,73,357;exs;rd
Temp SearchSave "TD377608471" stored
15feb07 09:04:48 User219511 Session D675.3
$6.39 2.174 DialUnits File411
$6.39 Estimated cost File411
$0.53 TELNET
$6.92 Estimated cost this search
$7.43 Estimated total session cost 2.421 DialUnits

SYSTEM:OS - DIALOG OneSearch
File 155:MEDLINE(R) 1950-2007/Feb 10
(c) format only 2006 Dialog
*File 155: MEDLINE has resumed updating with UD20061209. Please see HELP NEWS 154 for details.
File 5:Biosis Previews(R) 1969-2007/Feb W1
(c) 2007 The Thomson Corporation
*File 5: In preparation for coming enhancements, accession numbers will change soon. See HELP NEWS 5 for details.
File 34:SciSearch(R) Cited Ref Sci 1990-2007/Feb W2
(c) 2007 The Thomson Corp
File 71:ELSEVIER BIOBASE 1994-2007/Feb W2
(c) 2007 Elsevier B.V.
File 73:EMBASE 1974-2007/Feb 14
(c) 2007 Elsevier B.V.
File 357:Derwent Biotech Res. _1982-2007/Feb W2
(c) 2007 The Thomson Corp.

Set	Items	Description
Executing TD377608471		
HILIGHT set on as '%'		
	504126	DELTA
	125396	TR
	2850518	ALPHA
	15919421	2
S1	152	DELTA AND TR AND ALPHA AND 2
S2	121	RD (unique items)

? t s2/7/1-121;bye

2/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

21135173 PMID: 16434558
Decreased nuclear hormone receptor expression in the livers of mice in late pregnancy.
Sweeney Trevor R; Moser Arthur H; Shigenaga Judy K; Grunfeld Carl; Feingold Kenneth R
Department of Medicine, University of California, San Francisco, CA 94121, USA.
American journal of physiology. Endocrinology and metabolism (United States) Jun 2006, 290 (6) pE1313-20, ISSN 0193-1849--Print
Journal Code: 100901226
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
During the third trimester of pregnancy, there is an increase in serum triglyceride and cholesterol levels. The mechanisms accounting for these changes in lipid metabolism during pregnancy are unknown. We hypothesized that, during pregnancy, the expression of nuclear hormone receptors involved in regulating lipid metabolism would decrease. In 19-day pregnant mice, serum triglyceride and non-HDL cholesterol levels were significantly increased, whereas total cholesterol was slightly decreased, because of a decrease in the HDL fraction. Peroxisome proliferator-activated receptor (PPAR)%alpha%, PPARbeta/%delta%, and PPARgamma, liver X receptor (LXR) %alpha% and LXRbeta, farnesoid X receptor (FXR), and retinoid X receptor (RXR)%alpha% , RXRbeta, and RXRgamma mRNA levels were significantly decreased in the livers of 19-day pregnant mice. Additionally, the expressions of thyroid receptor (%TR%)%alpha%, pregnane X receptor, sterol regulatory element-binding proteins (SREBP)-1a, SREBP-1c, SREBP-%2%, and liver receptor homolog 1 were also decreased, whereas the expression of TRbeta, constitutive androstane receptor, and hepatic nuclear factor 4 showed no significant change. mRNA levels of the PPAR target genes carnitine-palmitoyl transferase 1alpha and acyl-CoA oxidase, the LXR target genes SREBP1c, ATP-binding cassettes G5 and G8, the FXR target gene SHP, and the %TR% target genes malic enzyme and Spot14 were all significantly decreased. Finally, the expressions of PPARgamma coactivator (PGC)-1alpha and PGC-1beta, known activators of a number of nuclear hormone receptors, were also significantly decreased. The decreases in expression of RXRs, PPARs, LXRs, FXR, TRs, SREBPs, and PGC-1s could contribute to the alterations in lipid metabolism during late pregnancy.
Record Date Created: 20060509
Record Date Completed: 20060713
Date of Electronic Publication: 20060124

2/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

19769567 PMID: 16155104

Nuclear localization of protein kinase C-%alpha% induces thyroid hormone receptor-alpha1 expression in the cardiomyocyte.
Kenessey Agnes; Sullivan Elizabeth Ann; Ojamaa Kaie
Institute for Medical Research, North Shore-LIJ Health System, 350 Community Dr., Manhasset, NY 11030, USA.
American journal of physiology. Heart and circulatory physiology (United States) Jan 2006, 290 (1) pH381-9, ISSN 0363-6135--Print
Journal Code: 100901228
Contract/Grant No.: HL-71623; HL; NHLBI
Publishing Model Print-Electronic
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Maladaptive cardiac hypertrophy results in phenotypic changes in several genes that are thyroid hormone.responsive, suggesting that thyroid hormone receptor (%TR%) function may be altered by cellular kinases, including protein kinase C (PKC) isozymes that are activated in pathological hypertrophy. To investigate the role of PKC signaling in regulating %TR% function, cultured neonatal rat ventricular myocytes were transduced with adenovirus (Ad) expressing wild-type (wt) or kinase-inactive (dn) PKC %alpha% or constitutively active (ca) PKC %delta% and PKC epsilon. Overexpression of wtPKC %alpha%, but not caPKC %delta% or caPKC epsilon, induced a 28-fold increase ($P < 0.001$) in %TR% alpha1 protein in the nuclear compartment and a smaller increase in the cytosol. Furthermore, %TR% alpha1 mRNA was increased 55-fold ($P < 0.001$). This effect of PKC %alpha% was dependent on its kinase activity because dnPKC %alpha% was without effect. Phorbol 12-myristate 13-acetate (PMA) induced nuclear translocation of endogenous PKC %alpha% and Ad-wtPKC %alpha% concomitantly with an increase in nuclear %TR% alpha1 protein. In contrast, PMA-induced nuclear translocation of dnPKC %alpha% resulted in a decrease of %TR% alpha1. The increase in %TR% alpha1 protein in Ad-wtPKC %alpha%-transduced cardiomyocytes was not the result of a reduced rate of protein degradation, nor was the half-life of %TR% alpha1 mRNA prolonged, suggesting a PKC %alpha%-mediated effect on %TR% %alpha% transcription. Although phosphorylation of ERK1/%2% was increased in Ad-wtPKC %alpha%-transduced cells, inhibition of phospho-ERK did not change %TR% alpha1 expression. PKC %alpha% overexpression in cardiomyocytes caused marked repression of triiodothyronine (T3)-responsive genes, %alpha%-myosin heavy chain, and the sarcoplasmic reticulum calcium-activated adenosinetriphosphatase SERCA2. Treatment with T3 for 4 h resulted in significant reductions of PKC %alpha% in nuclear and cytosolic compartments, and decreased %TR% alpha1 mRNA and protein, with normalization of phenotype. These results implicate PKC %alpha% as a regulator of %TR% function and suggest that nuclear localization of PKC %alpha% may control transcription of the %TR% %alpha% gene, and consequently, affect cardiac phenotype.
Record Date Created: 20051223
Record Date Completed: 20060123
Date of Electronic Publication: 20050909

2/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

15585451 PMID: 16039982
Mechanisms of selenium inhibition of cell apoptosis induced by oxysterols in rat vascular smooth muscle cells.
Tang Rong; Liu Hongmei; Wang Tiebing; Huang Kaixun
Department of Chemistry, Huazhong University of Science and Technology, Wuhan, Hubei 430074, PR China.
Archives of biochemistry and biophysics (United States) Sep 1 2005, 441 (1) p16-24, ISSN 0003-9861--Print Journal Code: 0372430
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Our previous study reported that oxysterol cholestane-3beta,5 %alpha%, 6 beta-triol (Triol) induced vascular smooth muscle cells (VSMCs) apoptosis, which was inhibited by selenium pretreatment. To further investigate the mechanisms of the inhibition, the glutathione peroxidase (GPx) activity, the total antioxidant capacity (T-AOC), the total superoxide dismutase (SOD) activity, and the level of lipid peroxidation (the content of malondialdehyde, MDA) of VSMCs were measured, and fluidity of cell membrane, reactive oxygen species (ROS) level, the reduction of mitochondrial membrane potential (%Delta% psi(m)), and the intracellular Ca(%2% +) in single cell were detected using several fluorescence indicators. Meanwhile, the mRNA levels of c-myc, bcl-%2% , GPx, and thioredoxin reductase (%TR%) were measured by reverse transcriptase polymerase chain reaction (RT-PCR) analysis. The results showed that the decrease of GPx activity, T-AOC, SOD activity, the fluidity of cell membrane, the %Delta% psi(m), and the mRNA expression of c-myc, bcl-%2%, GPx, and %TR% of VSMCs and the increase of MDA, ROS generation, and intracellular Ca(%2% +), significantly induced by Triol (10 microM, 24h) were inhibited to a different extent, respectively, when cells were pretreated with sodium selenite (50 nM, 12 or 24h) before exposure to Triol. These effects were time dependent and enhanced with prolongation of the time of pretreatment. In conclusion, the results in the present work showed that the mechanism of selenium inhibition of cell apoptosis induced by oxysterols in rat VSMCs was related with the antioxidation of selenoproteins.
Record Date Created: 20050823
Record Date Completed: 20051028

2/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14405080 PMID: 12871087
Rational drug design and the discovery of the delta2-1,%2%,3-triazolines, a unique class of anticonvulsant and antiischemic agents.
Kadaba Pankaja K
K and K Biosciences, Inc. 2504 Century Lane, Chadds Ford, PA 19317, USA. pkadaba@iopener.net
Current medicinal chemistry (Netherlands) Oct 2003, 10 (20) p2081-108, ISSN 0929-8673--Print Journal Code: 9440157
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The %delta%(%2%)- 1,%2% ,3- triazoline anticonvulsants (TRs) may be considered as representing a unique class of "built-in" heterocyclic prodrugs where the active "structure element" is an integral part of the ring system and can be identified only by a knowledge of their chemical reactivity and metabolism. Investigations on the metabolism and pharmacology of a lead triazoline, ADD17014 suggest that the triazolines function as "prodrugs" and exert their anticonvulsant activity by impairing excitatory amino acid (EAA) L-Glutamate (L-Glu) neurotransmission via a unique "dual-action" mechanism. While an active primary beta-amino alcohol metabolite from the parent prodrug acts as an N-methyl-D-aspartate (NMDA)/MK -801 receptor antagonist, the parent triazoline impairs the presynaptic release of L-Glu. Various pieces of theoretical reasoning and experimental evidence have led to the elucidation of the dual-action mechanism. Based on the unique chemistry of the triazolines, and their metabolic pathways, biotransformation products of TRs were predicted to be the beta-amino alcohols V and VA, the %alpha%-amino acid VI, the triazole VII, the aziridine VIII and the ketimine IX. In vivo and in vitro pharmacological studies of the %TR% and potential metabolites, along with a full quantitative urinary metabolic profiling of %TR% indicated the primary beta-amino alcohol V as the active species. It was the only compound that inhibited the specific binding of [3H]MK-801 to the MK-801 site, 56% at 10 micro M drug concentration, but itself had no anticonvulsant activity, suggesting %TR% acted as a prodrug. Three metabolites were identified; V was the most predominant (45.7 +/- 7.6) % of administered drug, with lesser amounts of VA, (17.3 +/- 5.1) % and very minor amounts of aziridine VIII (4.0 +/- 0.02)%. Since only VIII can yield VA, its formation indicated that the biotransformation of %TR% occurred, at least in part, through

aziridine. No amino acid metabolite was detected, which implied that no in vivo oxidation of V or oxidative biotransformation of %TR% or aziridine by hydroxylation at the methylene group occurred. While triazoline significantly decreased Ca(%2%+) -dependent, k(+)-evoked L-Glu release (83% at 100 micro M drug concentration), some triazolines showed an augmentation of 50-63%, in the Cl(-) channel activity, a useful membrane action that reduces the excessive L-Glu release that occurs during epileptic seizures. The high anticonvulsant activity of TRs in a variety of seizure models including their effectiveness in the kindling model of complex partial seizures may be due to their unique dual-action mechanism whereby the %TR% and V together effectively impair both pre- and postsynaptic aspects of EAA neurotransmission; thus the TRs have clinical potential in the treatment of complex partial epilepsy which is refractory to currently available drugs. Since there is strong evidence that L-Glu plays an important role in human epilepsy as well as in brain ischemia/stroke, and since the TRs act by inhibiting EAA neurotransmission, it was logical to expect that the anticonvulsant TRs may evince beneficial therapeutic potential in cerebral ischemia resulting from stroke as well. And indeed, several TRs, when tested in the standard gerbil model of global ischemia did evince remarkable ability to prevent neuronal death. (113 Refs.)
Record Date Created: 20030721
Record Date Completed: 20040520

2/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

14196199 PMID: 12612906
T helper type-%2% cells induce ileal villus atrophy, goblet cell metaplasia, and wasting disease in T cell-deficient mice.
Dohi Taeko; Fujihashi Kohtaro; Koga Toshiya; Shirai Yuko; Kawamura Yuki I ; Ejima Chieko; Kato Rie; Saitoh Kiyoshi; McGhee Jerry R
Department of Gastroenterology, Research Institute, International Medical Center of Japan, Tokyo, Japan. dohi@ri.imcj.go.jp
Gastroenterology (United States) Mar 2003, 124 (3) p672-82, ISSN 0016-5085--Print Journal Code: 0374630
Contract/Grant No.: AI 18958; AI; NIAID; AI 35932; AI; NIAID; AI 43197; AI; NIAID; DC 04976; DC; NIDCD; DE 09837; DE; NIDCR; DE 12242; DE; NIDCR; DK 44240; DK; NIDDK; P30 DK 54781; DK; NIDDK
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
BACKGROUND & AIMS: T helper (Th) 1 and Th2 cell subsets significantly influence the pathological features of inflammation in the gastrointestinal tract in a distinct manner. It is now established that the transfer of CD4(+)CD45RB(Hi) (RB(Hi)) T cells to either severe combined immunodeficient (SCID) or recombinase activation gene %2%-deficient (RAG(-/-)) mice results in a severe granulomatous hypertrophic colitis mediated by Th1 cells. We have modified this approach to address the role of Th2 cells. METHODS: RB(Hi) T cells from wild-type (Wt) mice or mice genetically predisposed to Th2 responses (interferon-gamma-defective [IFN-gamma(-/-)]) with or without B cells were transferred to T cell receptor (TCR)-beta and %delta% -chain-defective (TCR(-/-)) or SCID mice. RESULTS: Transfer of Wt RB(Hi) T cells induced wasting disease with severe colitis in the TCR(-/-) mice. In contrast, IFN-gamma(-/-) RB(Hi) T cells induced severe weight loss and hypoalbuminemia without significant inflammation in the colon. The small intestine of these mice exhibited villus atrophy, a decrease in brush-border enzymes, reduced enterocyte proliferation, and an increased number of goblet cells. The presence of B cells was necessary for these changes, because SCID recipients required cotransfer of B cells, together with IFN-gamma(-/-) RB(Hi) T cells for ileal lesions to develop. Treatment of TCR(-/-) recipients of IFN-gamma(-/-) RB(Hi) T cells with anti-IL-4 mAb abrogated both the wasting disease and the villus atrophy. CONCLUSIONS: Dysregulated Th2 cells cause atrophic changes and goblet cell transformation in the small intestinal epithelium and wasting disease mediated by excess interleukin-4 and B cells.
Record Date Created: 20030303
Record Date Completed: 20030327

2/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

13421131 PMID: 11598918
Receptor protein tyrosine phosphatases regulate retinal ganglion cell axon outgrowth in the developing Xenopus visual system.
Johnson K G; McKinnell I W; Stoker A W; Holt C E
Department of Anatomy, University of Cambridge, Downing Street, Cambridge CB2 3DY, United Kingdom. karl johnson@hms.harvard.edu
Journal of neurobiology (United States) Nov 5 2001, 49 (2) p99-117, ISSN 0022-3034--Print Journal Code: 0213640
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Receptor protein tyrosine phosphatases (RPTPs) are regulators of axon outgrowth and guidance in a variety of different vertebrate and invertebrate systems. Three RPTPs, CRYP-%alpha%, PTP-%delta%, and LAR, are expressed in overlapping but distinct patterns in the developing Xenopus retina, including expression in retinal ganglion cells (RGCs) as they send axons to the tectum (Johnson KG, Holt CE. 2000. Expression of CRYP-%alpha%, LAR, PTP-%delta%, and PTP-rho in the developing Xenopus visual system. Mech Dev 92:291-294). In order to examine the role of these RPTPs in visual system development, putative dominant negative RPTP mutants (CS-CRYP-%alpha%, CS-PTP-%delta% , and CS-LAR) were expressed either singly or in combination in retinal cells. No effect was found on either retinal cell fate determination or on gross RGC axon guidance to the tectum. However, expression of these CS-RPTP constructs differentially affected the rate of RGC axon outgrowth. In vivo, expression of all three CS-RPTPs or CS-PTP-%delta% alone inhibited RGC axon outgrowth, while CS-LAR and CS-CRYP-%alpha% had no significant effect. In vitro, expression of CS-CRYP-%alpha% enhanced neurite outgrowth, while CS-PTP-%delta% inhibited neurite outgrowth in a substrate-dependent manner. This study provides the first in vivo evidence that RPTPs regulate retinal axon outgrowth. Copyright 2001 John Wiley & Sons, Inc.
Record Date Created: 20011012
Record Date Completed: 20011213

2/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

13316269 PMID: 11471830
Effector mechanism and clinical response of BAK (BRM-activated killer) immuno-cell therapy for maintaining satisfactory QOL of advanced cancer patients utilizing CD56-positive NIE (neuro-immune-endocrine) cells.
Ebina T; Ogama N; Shimanuki H; Kubota T; Isono N
Division of Immunology, Niyagi Cancer Center Research Institute, Natori, Japan. takebina@mcc.pref.miyagi.jp
Microbiology and immunology (Japan) 2001, 45 (5) p403-11, ISSN 0385-5600--Print Journal Code: 7703966
Publishing Model Print
Document type: Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
A new type of immuno-cell therapy called BRM-activated killer (BAK) therapy using non-MHC-restricted lymphocytes, CD56-positive cells, was devised. Peripheral blood lymphocytes were selected by immobilization with anti-CD3 monoclonal antibody and cultured for %2% weeks in the presence of IL-%2%. Thereafter, they were reactivated by 1,000 U/ml of IFN-%alpha% for 15 min. Twenty-six outpatients with cancer whose performance status were over 80% on Karnofsky scale were selected for this study. About 6 x 10(9)

BAK cells were returned by intravenous drip infusion, at one month intervals at an outpatient clinic to each of 20 advanced cancer patients in whom many metastatic lesions were found postoperatively, and to 6 patients with no postoperatively detectable metastases. The proportion of CD56-positive cells increased from 20% to 50% with culture. CD56-positive cells have strong cytotoxic activity and produced 20 ng/10(9) cells of beta-endorphin, an intracerebral hormone. During the course of BAK therapy, we adopted the Face scale as a QOL indicator. The QOL of all patients remained satisfactory or improved. Beta-endorphin is thought to make patients feel well and maintains good QOL because of its potent analgesic, sedative activity. From that facts that CD56 is a neural cell adhesion molecule and a member of the Ig superfamily, and that the CD56-positive cell produces beta-endorphin, we concluded that the CD56-positive cell is a multifunctional, integrated NIE (neuro-immune-endocrine) cell. Administration of BAK cells allowed all 20 advanced cancer patients with metastases to survive for over one year. All 6 patients receiving the same therapy for prevention of postoperative metastasis have been recurrence-free for one to five years.
Record Date Created: 20010726
Record Date Completed: 20011213

2/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13097916 PMID: 11180058
Quantitative analysis of Penicillium chrysogenum Wis54-1255 transformants overexpressing the penicillin biosynthetic genes.
Theilgaard H; van Den Berg M; Mulder C; Bovenberg R; Nielsen J
Center for Process Biotechnology, Department of Biotechnology, Building 223, Technical University of Denmark, DK-2800 Lyngby, Denmark.
Biotechnology and bioengineering (United States) Feb 20 2001, 72 (4) p379-88, ISSN 0006-3592--Print Journal Code: 7502021
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The low penicillin-producing, single gene copy strain Wis54-1255 was used to study the effect of overexpressing the penicillin biosynthetic genes in Penicillium chrysogenum. Transformants of Wis54-1255 were obtained with the amdS expression-cassette using the four combinations: pcbAB, pcbC, pcbC-penDE, and pcbAB-pcbC-penDE of the three penicillin biosynthetic genes. Transformants showing an increased penicillin production were investigated during steady-state continuous cultivations with glucose as the growth-limiting substrate. The transformants were characterized with respect to specific penicillin productivity, the activity of the two pathway enzymes %delta%-(L-%alpha% -aminoadipyl)-L-cysteinyl-D-valine synthetase (ACVS) and isopenicillin N synthetase (IPNS) and the intracellular concentration of the metabolites: %delta%-(L-%alpha% -aminoadipyl)-L-cysteinyl-D-valine (ACV), bis-%delta%-(L-%alpha%-aminoadipy l)-L-cysteinyl-D-valine (bisACV), isopenicillin N (IPN), glutathione (GSH), and glutathione disulphide (GSSG). Transformants with the whole gene cluster amplified showed the largest increase in specific penicillin productivity (r(p))-124% and 176%, respectively, whereas transformation with the pcbC-penDE gene fragment resulted in a decrease in r(p) of 9% relative to Wis54-1255. A marked increase in r(p) is clearly correlated with a balanced amplification of both the ACVS and IPNS activity or a large amplification of either enzyme activity. The increased capacity of a single enzyme occurs surprisingly only in the transformants where all the three biosynthetic genes are overexpressed but is not found within the group of pcbAB or pcbC transformants. The indication of the pcbAB and pcbC genes being closely regulated in fungi might explain why high-yielding strains of P. chrysogenum have been found to contain amplifications of a large region including the whole penicillin gene cluster and not single gene amplifications. Measurements of the total ACV concentration showed a large span of variability, which reflected the individual status of enzyme overexpression and activity found in each strain. The ratio ACV:bisACV remained constant, also at high ACV concentrations, indicating no limitation in the capacity of the thioredoxin-thioredoxin reductase (%TR%) system, which is assumed to keep the pathway intermediate LLD-ACV in its reduced state. The total GSH pool was at a constant level of approx. 5.7 mM in all cultivations. Copyright 2001 John Wiley & Sons, Inc.
Record Date Created: 20010222
Record Date Completed: 20010503

2/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12792199 PMID: 10903774
Adoptively transferred gamma %delta% T cells indirectly regulate murine graft-versus-host reactivity following donor leukocyte infusion therapy in mice.
Drobyski W R; Vodanovic-Jankovic S; Klein J
Departments of Medicine and Biostatistics and Bone Marrow Transplant Program, Medical College of Wisconsin, Milwaukee, WI 53226, USA. bill@bmt.mcw.edu
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Aug 1 2000, 165 (3) p1634-40, ISSN 0022-1767--Print Journal Code: 2985117R
Contract/Grant No.: HL55388; HL; NHLBI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The purpose of this study was to determine whether gamma %delta% T cells were able to regulate graft-vs-host (GVH) reactivity mediated by %alpha% beta T cells in murine recipients transplanted with MHC-mismatched marrow grafts. Studies were conducted using ex vivo-activated gamma %delta% T cells because this was a more clinically relevant strategy, and these cells have been shown to be capable of facilitating alloengraftment without causing GVH disease (GVHD). Coadministration of activated gamma %delta% T cells and naive %alpha% beta T cells at the time of bone marrow transplantation (BMT) significantly exacerbated GVHD when compared with naive %alpha% beta T cells alone. In contrast, when the administration of naive %alpha% beta T cells was delayed for %2% wk post-BMT, survival was significantly enhanced in mice transplanted with BM plus activated gamma %delta% T cells vs those given marrow cells alone. Mitigation of GVHD by activated gamma %delta% T cells occurred only at high doses (150 x 106) and was a unique property of gamma %delta% T cells, as activated %alpha% beta T cells were incapable of ameliorating the subsequent development of GVHD. Protection from GVHD was not due to the direct inhibition of naive %alpha% beta T cells by gamma %delta% T cells. Rather, gamma %delta% T cells mediated this effect indirectly through donor BM-derived %alpha% beta T cells that acted as the proximate regulatory population responsible for the decrease in GVH reactivity. Collectively, these data demonstrate that activated gamma %delta% T cells are capable of modulating the ability of MHC-incompatible nontolerant %alpha% beta T cells to cause GVHD after allogeneic BMT.
Record Date Created: 20000822
Record Date Completed: 20000822

2/7/10 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11803584 PMID: 9626338
Differential regulation of rejection of small intestinal and skin allografts in rats by injection of antibodies to ICAM-1 or the integrins %alpha% 4, %alpha% L, or beta %2%.
Gorczynski R M; Fu X M; Issekutz T; Cohen Z
Department of Surgery, University of Toronto Transplant Research, Ontario, Canada.
Cellular immunology (UNITED STATES) Feb 25 1998, 184 (1) p74-82, ISSN 0008-8749--Print Journal Code: 1246405
Publishing Model Print

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Female Lewis (LEW) rats received orthotopic small intestinal transplantation (SIT), or tail skin grafts from female (Lewis x Brown Norway)F1 (LBNF1) rats, along with peritransplant portal venous (pv) infusion of LBNF1 bone marrow-derived dendritic cells derived from male donors. All animals received im injection with cyclosporin A (5 mg/kg) for 3 consecutive days following transplantation. In some cases rats received intravenous injections, at %2% -day intervals, with 1 mg of monoclonal antibodies to ICAM-1 or the integrins %alpha% 4, %alpha% L, or beta %2%, or combinations of these reagents. Cells were harvested from the recipient rats at different times posttransplantation, and single cell suspensions were analyzed by FACS for expression of CD3+, CD4+, CD8+, %alpha% beta TcR+, and gamma %delta% TcR+ cells. Other tissue samples were used for histopathological assessment of rejection. We also investigated donor-specific and third-party (Wistar-Furth, Wi) restimulation of host lymphocytes from MLN, PLN, and PP for production of different cytokines in vitro. Of the various antibodies tested, only anti-%alpha% 4, but not anti-%alpha% L, -beta %2%, nor -ICAM-1 led to further increased graft survival of LBNF1 SIT beyond that seen with pv-infused cells alone (30 days vs 19 days), while the combination of anti-%alpha% L (or beta %2%) and ICAM-1 produced further significantly increased survival of skin grafts (30 days vs 21 days). For both SIT and skin-grafted animals increased graft survival was associated with decreased production of IL-%2% and IFN-gamma and increased production of IL-4 and IL-10 from tissues local to the graft (PP and draining LN, respectively), with less significant alterations in tissues distant to the graft (PLN for SIT, and MLN for skin grafts). While, as reported previously, pv-immunized SIT rats showed increased gamma %delta% TCR+ cells within the SIT in association with increased graft survival, treatment with anti-%alpha% 4 diminished this increase in gamma %delta% TCR+ cells, while simultaneously increasing SIT survival. Nevertheless, the bias toward increased IL-10 production, and decreased IFN-gamma production, from cells of animals showing increased survival was maintained. These data suggest that local graft infiltration with gamma %delta% TCR+ cells following pv immunization is not necessary for prolongation of survival in this model system, although functional changes in the local cytokines milieu may be important.
Record Date Created: 19980625
Record Date Completed: 19980625

2/7/11 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11729705 PMID: 9535655
Generation of intestinal T cells from progenitors residing in gut cryptopatches.
Saito H; Kanamori Y; Takemori T; Nariuchi H; Kubota E; Takahashi-Iwanaga H; Iwanaga T; Ishikawa H
Department of Microbiology, Keio University School of Medicine, Tokyo 160, Japan.
Science (UNITED STATES) Apr 10 1998, 280 (5361) p275-8, ISSN 0036-8075--Print Journal Code: 0404511
Publishing Model Print; Comment in Science. 1998 Apr 10;280(5361) 198-200 ; Comment in PMID 9565528
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Cryptopatches (CPs) are part of the murine intestinal immune compartment. Cells isolated from CPs of the small intestine that were c-kit positive (c-kit+) but lineage markers negative (Lin-) gave rise to T cell receptor (TCR) alphabeta and TCR gammadelta intestinal intraepithelial T cells after in vivo transfer or tissue engraftment into severe combined immunodeficient mice. In contrast, cells from Peyer's patches and mesenteric lymph nodes, which belong in the same intestinal immune compartment but lack c-kit+Lin- cells, failed to do so. These findings and results of electron microscopic analysis provide evidence of a local intestinal T cell precursor that develops in the CPs.
Record Date Created: 19980428
Record Date Completed: 19980428

2/7/12 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11520009 PMID: 9381541
Treatment with either anti-CD4 or anti-CD8 monoclonal antibodies blocks alphabeta T cell-mediated rejection of intestinal allografts in mice.
Newell K A; He G; Hart J; Thistlethwaite J R
Department of Surgery, University of Chicago, Illinois 60637, USA.
Transplantation (UNITED STATES) Oct 15 1997, 64 (7) p959-65, ISSN 0041-1337--Print Journal Code: 0132144
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
BACKGROUND: Rejection is the major barrier preventing the more widespread application of intestinal transplantation as treatment for intestinal failure. For this study, a one-way host-versus-graft murine model was used to investigate the contribution of T cell subsets to the rejection of allogeneic intestinal allografts. METHODS: Intestinal grafts consisting of the donor jejunum and ileum were procured from C57BL/6J (syngeneic group) and B6C3F1/J (C57BL/6 x C3H/HeJ, allogeneic group) mice. These grafts were then transplanted into (1) normal, (%2%) antibody-treated, or (3) genetically mutated C57BL/6 mice. Mice were killed at predetermined intervals and the grafts assessed for rejection by a blinded pathologist. RESULTS: No syngeneic mice demonstrated any evidence of rejection. In contrast, the recipients of allografts experienced progressive rejection. Recipient mice treated with tacrolimus developed significantly less severe allograft rejection. None of the alphabeta T cell-deficient recipient mice (T cell receptor beta chain knockout mice) experienced allograft rejection with follow-up ranging from 8 to 28 days. However, mice deficient in gammadelta T cells (T cell receptor %delta% chain knockout mice) rejected intestinal allografts in a manner indistinguishable from normal recipients. In order to investigate the role of CD4+ and CD8+ T cells, recipient mice were treated %2% days before transplantation with depleting monoclonal antibodies specific for either CD4+ cells or CD8+ cells. Depletion of either population of cells significantly inhibited allograft rejection. CONCLUSIONS: These data demonstrate that rejection of intestinal allografts in the murine model was absolutely dependent on alphabeta but not gammadelta T cells. Furthermore, both CD4+ and CD8+ T cells were necessary for small bowel allograft rejection. Additional studies will be required to determine whether the effects of monoclonal antibody treatment were due solely to depletion of T cells or were mediated at least in part through an active process that altered the functional properties of the targeted T cell subset.
Record Date Created: 19971107
Record Date Completed: 19971107

2/7/13 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11444984 PMID: 9268494
Allospecific cytotoxic T cells generated from beta 2m-/- mice in primary MLC: analysis of activation requirements, specificity, and phenotype.
Lamouse-Smith E; McCarthy S A
Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, Pennsylvania 15213, USA.
Cellular immunology (UNITED STATES) Aug 1 1997, 179 (2) p107-15, ISSN 0008-8749--Print Journal Code: 1246405
Contract/Grant No.: 5T32-GM08208; GM; NIGMS
Publishing Model Print

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
It has been demonstrated by several investigators that beta 2m-/- knockout mice are deficient in the expression of MHC Class I molecules but can nevertheless generate CD8(+) allospecific cytotoxic T cells following vigorous in vivo priming. We demonstrate here that in vivo priming is not necessary to generate MHC Class I allospecific CTL from beta 2m-/- mice. When splenocytes from naive unprimed beta 2m-/- mice were provided exogenous cytokines in MHC Class I disparate primary MLC, allospecific cytolytic effectors were generated. beta 2m-/- MHC Class I allospecific CTL that were CD3+ and Thy1.%2%+ were otherwise heterogeneous in phenotype, including CD8+, CD4+, CD8-CD4-, TCR %alpha% beta+, and TCR gamma %delta%+ T cells. This phenotypic variability of beta 2m-/- CTL generated in primary MLC reveals the diversity of CTL precursors that develop in vivo in the absence of MHC Class I.
Record Date Created: 19970919
Record Date Completed: 19970919

2/7/14 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11395736 PMID: 9218757
Protection of NIT-1 pancreatic beta-cells from immune attack by inhibition of NF-kappaB.
Stephens L A; Thomas H E; Kay T W
Burnet Clinical Research Unit, Walter and Eliza Hall Institute of Medical Research, Victoria, Australia.
Journal of autoimmunity (ENGLAND) Jun 1997, 10 (3) p293-8, ISSN 0896-8411--Print Journal Code: 8812164
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We have recently observed that inhibition of NF-kappaB in NIT-1 insulinoma cells protects them from tumour necrosis factor (TNF)-induced cell death in vitro, possibly because expression of interleukin-1 (IL-1)beta-converting enzyme (ICE), a member of the cysteine protease pathway of cell death, is decreased. In the current study we have examined the effect of the same inhibitor of NF-kappaB on class I major histocompatibility complex (MHC) protein expression in NIT-1 cells and shown that inhibition of NF-kappaB activation decreased basal and TNF-induced class I MHC levels. Although inducible nitric oxide synthase (iNOS) may also be inhibited by inhibition of NF-kappaB, this could not be demonstrated in NIT-1/%delta% sp cells because wild-type NIT-1 cells express very little iNOS. When NIT-1/%delta% sp12 cells, expressing high levels of the NF-kappaB inhibitor, are transplanted into immunodeficient NOD/scid mice, tumorigenesis and death by hypoglycemia proceed similarly to untransfected NIT-1 cells. Untransfected NIT-1 cells were killed by co-transfer of splenic T cells from diabetic but not non-diabetic NOD mice. NIT-1/%delta% sp12 cells were protected from killing in vivo by T cells from diabetic mice, in that tumours developed in four out of five mice and the kinetics of tumour development were not significantly delayed. NIT-1/%delta% sp12 cells were not protected from killing by T cells from mice previously primed with NIT-1 cells. In conclusion, inhibition of NF-kappaB is likely to suppress several different pathways of immune-mediated cell death in beta-cells and protects NIT-1 cells from immune attack by diabetogenic T cells in vivo. Inhibition of NF-kappaB is a potentially effective strategy for protection of pancreatic beta-cells in autoimmune diabetes.
Record Date Created: 19970819
Record Date Completed: 19970819

2/7/15 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11341515 PMID: 9159031
Differences in immunophenotyping of mucosal lymphocytes between ulcerative colitis and Crohn's disease.
Lee H B; Kim J H; Yim C Y; Kim D G; Ahn D S
Department of Internal Medicine, Chon Buk National University, Chonbuk, Korea.
Korean journal of internal medicine (KOREA) Jan 1997, 12 (1) p7-15, ISSN 0494-4712--Print Journal Code: 8712418
Publishing Model Print
Document type: Clinical Trial; Controlled Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
OBJECTIVES: Immunologic studies have characterized the numbers and types of inflammatory cells in diseased inflammatory bowel disease (IBD) mucosa but have yielded conflicting results regarding intestinal lymphocytes activation in IBD. We investigated the levels of lymphocytes subsets, interleukin-%2% receptor, transferrin receptor, and T cell receptors in mainly isolated lamina propria lymphocytes. Including intraepithelial lymphocytes of normal colonic mucosa or IBD (ulcerative colitis and Crohn's disease) mucosa to understand the pathogenesis of IBD. We have results from this study. RESULTS: 1) In comparing ulcerative colitis with control, IL-2R ($p < 0.05$), %TR% ($p < 0.01$), and CD3/HLA-DR (< 0.05) showed a significant increase. %2%) In comparing Crohn's disease with control, CD3 ($P < 0.05$), TCR %alpha%/beta ($p < 0.01$) and TCR gamma/%delta% ($p < 0.05$) showed a significant decrease. 3) In comparing Crohn's disease with ulcerative colitis, CD19 ($p < 0.01$), %TR% ($p < 0.01$), TCR %alpha%/beta ($p < 0.01$) and TCR gamma/%delta% ($p < 0.05$) showed a significant decrease. CONCLUSION: From these results, there are increased T cell markers, IL-2R, %TR%, and CD3/HLA-DR in UC, but differently, decreased CD3, TCR %alpha%/beta and TCR gamma/%delta% in CD compared with control. In addition, definitive differences in lymphocytes markers, CD19, %TR%, TCR %alpha%/beta and TCR gamma/%delta% , which are higher in UC than in CD, may elucidate the different immunopathogenesis between UC and CD.
Record Date Created: 19970617
Record Date Completed: 19970617

2/7/16 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11240898 PMID: 9028343
Donor gamma %delta% T lymphocytes promote allogeneic engraftment across the major histocompatibility barrier in mice.
Drobyski W R; Majewski D
Department of Medicine, Medical College of Wisconsin, Milwaukee, USA.
Blood (UNITED STATES) Feb 1 1997, 89 (3) p1100-9, ISSN 0006-4971--Print Journal Code: 7603509
Contract/Grant No.: CA01534; CA; NCI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
T cells that express the %alpha% beta T-cell receptor are thought to be the T-cell population primarily responsible for facilitating alloengraftment. The role of gamma %delta% + T cells that comprise only a minority of mature T cells in promoting allogeneic engraftment, however, has not been extensively studied. The purpose of this study was to determine whether gamma %delta% T cells were capable of facilitating alloengraftment in murine recipients of major histocompatibility complex-mismatched marrow grafts. We developed a model where engraftment of C57BL/6 x 129/F2(H-2b) marrow in sublethally irradiated (800 cGy) recipients (AKR/J, H-2k) is dependent on the presence of mature donor T cells in the marrow graft. In this model, donor T-cell engraftment was significantly augmented by as few as 1 x 10(5) %alpha% beta T cells. The role of gamma %delta% T cells was then investigated using transgenic donors

(C57BL/6 x 129 background) in which a portion of the T-cell receptor-beta chain gene was deleted by gene targeting so that these mice lack %alpha% beta T cells. Addition of 10 x 10(5) naive gamma %delta% T cells to T-cell depleted marrow grafts was required to significantly increase alloengraftment, although donor T cells averaged < 50% of total splenic T cells. To determine whether higher doses of gamma %delta% T cells would improve donor engraftment and eradicate residual host T cells, gamma %delta% T cells were ex vivo expanded with a gamma %delta% T-cell-specific mono-clonal antibody and interleukin-%2% and then transplanted into irradiated recipients. Transplantation of > or = 160 x 10(6) activated gamma %delta% T cells was necessary to consistently and significantly augment donor cell chimerism and enhance hematopoietic reconstitution when compared to control mice, but host T cells persisted in these chimeras. Addition of %2%.5 x 10(4) mature %alpha% beta T cells, which alone were incapable of facilitating engraftment, to T-cell depleted marrow grafts containing 160 x 10(6) activated gamma %delta% T cells resulted in long-term (> 100 day) complete donor engraftment, indicating that limiting numbers of %alpha% beta T cells were required in the marrow graft for the eradication of residual host T cells. Using serial weight curves and B-cell reconstitution as end points, clinically significant graft-versus-host disease was not observed in these chimeras under these experimental conditions. These data show that, whereas less potent than %alpha% beta T cells, gamma %delta% T cells are able to promote engraftment and enhance hematopoietic reconstitution in allogeneic marrow transplant recipients.
Record Date Created: 19970311
Record Date Completed: 19970311

2/7/17 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11238273 PMID: 9023421
Three cell subsets are required for the transfer of delayed-type hypersensitivity reaction by antigen-specific T cell lines.
Salerno A; Dieli F; Sireci G; Bellavia A; Colizzi V; Ptak W; Asherson G L
Institute of General Pathology, University of Palermo and Immunopathology Section, ISMEDA-CNR, Italy.
Cellular immunology (UNITED STATES) Feb 1 1997, 175 (2) p157-63, ISSN 0008-8749--Print Journal Code: 1246405
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Antigen (trinitrochlorobenzene)-specific T cell lines were obtained by repeated stimulation of lymph node cells from immune mice with antigen in vitro. These T cell lines, consisting of more than 90% CD4+ Vbeta8.%2%+ and 6 to 9% gammadelta+ T lymphocytes, transfer contact sensitivity (CS) locally when injected at the same site as the challenge antigen, but fail to mediate a systemic passive transfer when injected i.v. Injection of T cell lines together with spleen cells from mice immunized 1 day beforehand (1-day cells) allowed a successful, specific systemic transfer of CS. Phenotypic analysis showed that the 1-day immune cell was alphabeta+, gammadelta-, slg-, CD3+, CD4-, CD8-, CD5+, B220 (CD45R)+, Thy 1.%2%+. The effect of 1-day immune cells occurred through a mechanism involving IL-4, as 1-day immune cells failed to allow systemic transfer of CS by T cell lines in recipient mice treated with mAb to IL-4. These observations strongly indicate that three cell subsets are required for the systemic passive transfer of CS by T cell lines: alphabeta+ CD4+, gammadelta+, and a third cell subset, which is CD45R+, alphabeta+, CD3+, but double (CD4, CD8) negative.
Record Date Created: 19970227
Record Date Completed: 19970227

2/7/18 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11213540 PMID: 8994184
Isoform variable action among thyroid hormone receptor mutants provides insight into pituitary resistance to thyroid hormone.
Safer J D; Langlois M F; Cohen R; Monden T; John-Hope D; Madura J; Hollenberg A N; Wondisford F E
Department of Medicine, Beth Israel Hospital, Boston, Massachusetts, USA.
Molecular endocrinology (Baltimore, Md.) (UNITED STATES) Jan 1997, 11 (1) p16-26, ISSN 0888-8809--Print Journal Code: 8801431
Contract/Grant No.: DK-02354; DK; NIDDK; DK-02423; DK; NIDDK; DK-43653; DK; NIDDK
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Resistance to thyroid hormone (RTH) is due to mutations in the beta-isoform of the thyroid hormone receptor (%TR%-beta). The mutant %TR% interferes with the action of normal %TR% to cause the clinical syndrome. Selective pituitary resistance to thyroid hormone (PRTH) results in inappropriate TSH secretion and peripheral sensitivity to elevated thyroid hormone levels. Association of the PRTH phenotype with in vitro behavior of the mutant %TR% has proved elusive. Alternative exon utilization results in two %TR%-beta isoforms, %TR%-beta 1 and %TR%-beta %2%, which differ only in their amino termini. Although the %TR%-beta 1 isoform is ubiquitous, the %TR%-beta %2% isoform is found predominantly in the anterior pituitary and brain. To date, in vitro evaluation of RTH mutations has focused on the %TR% -beta 1 isoform. Site-directed mutagenesis was used to create several PRTH (R338L, R338W, V349M, R429Q, I431T) and generalized RTH (%delta% 337T, P453H) mutations in both %TR%-beta isoforms. The ability of mutant TRs to act as dominant negative inhibitors of wild type %TR%-beta function on positive and negative thyroid hormone response elements (pTREs and nTREs, respectively) was evaluated in transient transfection assays. PRTH mutants had no significant dominant negative activity as %TR%-beta 1 isoforms on pTREs found in peripheral tissues or on nTREs found on genes regulating TSH synthesis. PRTH mutants, in contrast, had strong dominant negative activity on these same nTREs as %TR%-beta %2% isoforms. Cotransfected retinoid X receptor-%alpha% was required for negative T3 regulation via the %TR%-beta 1 isoform but was not necessary for negative regulation via the %TR%-beta %2% isoform in CV-1 cells. The differing need for retinoid X receptor cotransfection demonstrates two distinct negative T3-regulatory pathways, one mediated by the %TR%-beta 1 and the other mediated by %TR%-beta %2%. The selective effect of PRTH mutations on the %TR%-beta %2% isoform found in the hypothalamus and pituitary vs. the %TR%-beta 1 isoform found in peripheral tissues suggests a molecular mechanism for the PRTH disorder.
Record Date Created: 19970530
Record Date Completed: 19970530

2/7/19 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11047134 PMID: 8871233
Regenerated dorsal root fibers form functional synapses in embryonic spinal cord transplants.
Itoh Y; Waldeck R F; Tessler A; Pinter M J
Department of Anatomy and Neurobiology, Medical College of Pennsylvania, Philadelphia 19129, USA.
Journal of neurophysiology (UNITED STATES) Aug 1996, 76 (2) p1236-45, ISSN 0022-3077--Print Journal Code: 0375404
Contract/Grant No.: NS-24707; NS; NINDS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
1. The aim of the present study was to determine whether synapses formed by dorsal root afferents that regenerate into intraspinal transplants of fetal spinal cord are functional. Severed L4 or L5 dorsal root stumps were placed at the bottom of dorsal quadrant cavities made in the lumbar spinal

cords of adult rats and juxtaposed to embryonic day 14 spinal cord transplants. %2% . In animals examined 5-10 weeks later, we recorded extracellularly in transplants from 43 units that fired in response to electrical stimulation of the implanted dorsal root. Latency fluctuations of extracellular firing that increase with stimulus and failure to follow high-frequency and posttetanic potentiation of extracellular firing stimulation suggest that synapses with conventional properties are formed between regenerating afferents and transplant neurons. Limited intracellular recordings confirmed the existence of excitatory postsynaptic potentials in transplant neurons after dorsal root stimulation. 3. In 16 units, extracellular firing occurred in response to single shock stimulation. The remainder of the units required two or more dorsal root shocks to evoke firing; some of these connections also may be monosynaptic. 4. Under the assumption that single shock firing was most likely the result of monosynaptic connections between transplant neurons and regenerated dorsal root fibers, we estimated the conduction velocities of regenerated fibers. These estimates suggest that fibers with conduction velocities in the C, A %delta%, and A %alpha%/beta ranges regenerate into transplants of embryonic spinal cord. 5. The results demonstrate that regenerated dorsal root axons establish functional synaptic connections with transplant neurons. The implications for using fetal transplants to help rebuild spinal reflex circuits after spinal cord injury are considered.
Record Date Created: 19980316
Record Date Completed: 19980316

2/7/20 (Item 20 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11006100 PMID: 8824466
Graft-infiltrating cells in rats receiving orthotopic semiallogeneic small intestine transplantation with portal or systemic venous drainage.
Sullivan B; Cohen Z; Fu X M; Levy G; Plapler H; Wojcik D; Gorczynski R M
MRC Program Project Group, University of Toronto and The Toronto Hospital, Ontario, Canada.
Transplantation (UNITED STATES) Sep 27 1996, 62 (6) p715-21, ISSN 0041-1337--Print Journal Code: 0132144
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The effect of alterations in venous drainage, from either ivc to portal vein (pv), along with peritransplant systemic (ivc) or portal (pv) venous alloimmunization with irradiated semiallogenic cells, on cell subset recovery in lymphoid organs of Lewis rats receiving orthoptic small bowel allografts (from LewisXBrown Norway) F1, LBNF1) was examined. Combined portal, venous drainage and alloimmunization has been reported to increase graft/recipient survival in this model. FACS analysis using monoclonal antibodies specific for different lymphocyte subsets was performed on cell suspensions of peripheral (P) and mesenteric (M) lymph node (LN), small bowel intraepithelial lymphocytes (SBIEL), and Peyer's patch (PP) lymphocytes on days %2% and 8 posttransplantation. Donor cell contributions to these cellular analyses were estimated by comparison of FACS staining with polyclonal anti-Lewis or Lewis anti-LBNF1 antibodies. Control animals received syngeneic grafts. In both syngeneic and semi-allogenic transplants with pv or ivc drainage there was no consistent difference in cell subsets from in PLN compared with those of control nongrafted rats. Approximately 50% to 60% of these cells were alphabetaTcR+ with a CD4+/CD8+ ratio of 3-4:1 and a (CD4+↔CD8+)/alphabetaTcR+ ratio of 1:1. Some 5% to 12% ED3+ cells were also present. In IEL, MLN, and PP by contrast, there were significant differences in cells recovered from rats with ivc vs. pv drainage of grafts. The most striking changes reflected a decreased CD4+/CD8+ and alphabetaTcR+gammadeltaTcR+ cells in these tissues in rats predestined to show prolongation of allograft survival (ivc vs. pv injected IEL CD4/CD8+ ratios and alphabetaTcR+gammadeltaTcR+ ratios 1.0, 0.7 and 5.0, 1.0, respectively. These data are consistent with a proposed role for such gammadeltaTcR+ cells in the local regulation of graft rejection.
Record Date Created: 19961210
Record Date Completed: 19961210

2/7/21 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

10978740 PMID: 8793858
Analysis of the functional state of T3 nuclear receptors expressed in thyroid cells.
Selmi-Ruby S; Rousset B
Institut National de la Sante et de la Recherche Medicale, U 369, Faculte de Medecine Alexis Carrel, Lyon, France.
Molecular and cellular endocrinology (IRELAND) May 17 1996, 119 (1) p95-104, ISSN 0303-7207--Print Journal Code: 7500844
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
T3 nuclear receptors (%TR%) are present in thyroid cells. We have analyzed the ability of thyroid %TR% to function as transcriptional regulators. Studies were performed on pig thyrocytes in primary culture. Messenger RNA corresponding to %TR% %alpha% 1, %alpha% %2% and beta were detected in pig thyrocytes by RT-PCR and Northern blot; the %alpha% %2% mRNA was more abundant than the %alpha% 1 mRNA. Thyrocytes were transiently transfected with different plasmids containing the CAT (chloramphenicol acetyl transferase) gene placed under the control of different promoters (%delta% MTV, TK or %delta% SV40) and bearing a thyroid hormone response element, TREp or TRE DR + 4. It was found that TSH induced a concentration-dependent increase of the transfection efficiency, an effect reproduced by (Bu)2cAMP and Forskolin. Cells transfected with either %delta% MTV-, TK- or %delta% SV40-TREp-CAT expressed similar basal CAT activities. Addition of T3 produced a 3-fold increase of CAT activity expressed from each of these vectors. In contrast, CAT activity expressed from a vector containing the TRE DR + 4 was decreased by about 50% by T3. Thus, TREp and TRE DR + 4 gave distinct responses. These data demonstrate that %TR% physiologically expressed in thyroid cells can act as transcriptional regulators in a T3-dependent manner. This finding directly substantiates the concept of autocrine regulatory actions of thyroid hormones.
Record Date Created: 19961204
Record Date Completed: 19961204

2/7/22 (Item 22 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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10935040 PMID: 8726972
Characterization and transplantation of two neuronal cell lines with dopaminergic properties.
Adams F S; La Rosa F G; Kumar S; Edwards-Prasad J; Kentroti S; Vernadakis A; Freed C R; Prasad K N
Department of Medicine, University of Colorado Health Sciences Center, Denver 80262, USA.
Neurochemical research (UNITED STATES) May 1996, 21 (5) p619-27, ISSN 0364-3190--Print Journal Code: 7613461
Contract/Grant No.: GM 07063; GM; NIGMS; NS 18639; NS; NINDS; NS 29982; NS; NINDS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Immortalized rat mesencephalic cells (1RB3AN27) produced dopamine (DA) at a level that was higher than produced by undifferentiated or differentiated murine neuroblastoma cells (NBP2) in culture. Treatment of 1RB3AN27 and NBP2 cells with a cAMP stimulating agent increased tyrosine hydroxylase (TH) activity and the intensity of immunostaining for the DA transporter

protein (DAT). 1RB3AN27 cells were labelled with primary antibodies to neuron specific enolase (NSE) and nestin and exhibited very little or no labeling with anti-glial fibrillary acidic protein (GFAP). 1RB3AN27 cells exhibited beta- and %alpha% -adrenoreceptors, and prostaglandin E1 receptors, all of which were linked to adenylate cyclase (AC). Dopamine receptor (D1) and cholinergic muscarinic receptors linked to AC were not detectable. The levels of PKC %alpha% and PKC beta isoforms were higher than those of PKC gamma and PKC %delta% in 1RB3AN27 cells. The 1RB3AN27 cells were more effective in reducing the rate of methamphetamine-induced turning in rats with unilateral 6-OHDA lesion of the nigrostriatal system than differentiated NBP2 cells. The grafted 1RB3AN27 were viable as determined by DiI labelling, but they did not divide and did not produce T-antigen protein; however, when these grafted cells were cultured in vitro, they resumed production of T-antigen and proliferated after the primary glia cells and neurons of host brain died due to maturation and subsequent degeneration. Examination of H&E stained sections of the grafted sites revealed no evidence of infiltration of inflammatory cells in the grafted area suggesting that these cells were not immunogenic. They also did not form tumors.
Record Date Created: 19961107
Record Date Completed: 19961107

2/7/23 (Item 23 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10899406 PMID: 8752904
Gamma %delta% TCR+ hybridomas derived from mice preimmunized via the portal vein adoptively transfer increased skin allograft survival in vivo.
Gorczynski R M; Cohen Z; Leung Y; Chen Z
Medical Research Council Transplant Group, Toronto Hospital, Ontario, Canada.
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Jul 15 1996, 157 (2) p574-81, ISSN 0022-1767--Print Journal Code: 2985117R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
C57BL/6 mice receiving pretransplant immunization with C3H.SW spleen cells via the portal vein, but not the vena cava, show Ag-specific delayed rejection of allogeneic C3H.SW skin grafts. This delayed rejection is not seen if preimmunization is performed in gamma %delta% TCR knockout (C57BL/6-Tcrdtm1Mom) mice. gamma %delta% TCR+ and %alpha% beta TCR+ hybridoma cells were prepared from Peyer's patch cells harvested from C57BL/6 mice 4 days following portal venous immunization with 100 x 10(6) irradiated C3H.SW spleen cells and skin grafting with C3H.SW tail skin. After recloning, these hybridoma cells were tested for cytokine production in vitro following restimulation with irradiated C3H.SW spleen cells and for their ability to delay rejection of C3H.SW skin grafts after adoptive transfer to C57BL/6 mice. Delayed graft rejection was a function of cells that showed preferential production of IL-10, not IFN-gamma, in vitro, independent of the source (vena cava or portal vein immunized mice) or the TCR phenotype of the hybridoma. Simultaneous infusion of anti-IL-10 mAb abolished this graft prolongation effect of transferred gamma %delta% TCR+ hybridomas. Hybridoma cells producing IL-10 on restimulation could polarize cytokine production from freshly stimulated mesenteric lymph node away from production of IL-%2% and IFN-gamma, and toward IL-4, IL-10, and TGF-beta production. This immunoregulation by hybridoma cells in vivo and in vitro was observed even for third party Ag-stimulated mice/cells as long as the hybridoma cells themselves received stimulation with their specific Ag.
Record Date Created: 19961107
Record Date Completed: 19961107

2/7/24 (Item 24 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10739246 PMID: 8619015
Pharmacokinetic and pharmacodynamic responses to caffeine in poor and normal sleepers.
Tiffin P; Ashton H; Marsh R; Kamali F
Department of Pharmacological Sciences, University of Newcastle upon Tyne, UK.
Psychopharmacology (GERMANY) Oct 1995, 121 (4) p494-502, ISSN 0033-3158--Print Journal Code: 7608025
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Pharmacokinetic and pharmacodynamic responses to caffeine (%2%.5 mg/kg) were compared between ten healthy self-rated poor sleepers and ten normal sleepers. Sleep pattern assessed by the Pittsburgh Sleep Quality Index (PSQI). There was no significant difference in mean estimated daily caffeine consumption between the groups. The poor sleepers had significantly higher scores for neuroticism on the Eysenck Personality Questionnaire (EPQ) and anxiety on the Hospital Anxiety Depression (HAD) scale, compared with normal sleepers. Caffeine pharmacokinetics were assessed by measurement of saliva caffeine concentrations. Poor sleepers showed significantly greater variability in caffeine Cmax, clearance had half-life, compared to normal sleepers. Pharmacodynamic measures included heart rate, blood pressure, visual analogue scales for concentration, vigilance and relaxation, psychomotor performance [Digit Symbol Substitution Test (DSST) and tapping rate (%TR%)] and EEG activity [Contingent negative variation (CNV), auditory evoked potential and power spectral analysis]. Prior to caffeine administration, poor sleepers compared to normal sleepers had faster heart rates, lower ratings for concentration and relaxation, poorer performance on the DSST, greater CNV magnitude, faster peak %alpha% frequency and lower %delta%, theta and beta power. These differences persisted after caffeine ingestion and overall differences between the groups on these measures were significant (P < 0.01-.001). Post-dose, but not pre-dose, scores for vigilance and %TR% were significantly lower overall in poor compared with normal sleepers. Despite the baseline differences between poor and normal sleepers, the changes following caffeine administration were similar in direction and magnitude in both groups.
Record Date Created: 19960612
Record Date Completed: 19960612

2/7/25 (Item 25 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10739025 PMID: 8614403
Constitutive expression of the orphan receptor, Rev-erbA %alpha%, inhibits muscle differentiation and abrogates the expression of the myoD gene family.
Downes M; Carozzi A J; Muscat G E
University of Queensland, Centre for Molecular and Cellular Biology, Ritchie Research Laboratories, St. Lucia, Australia.
Molecular endocrinology (Baltimore, Md.) (UNITED STATES) Dec 1995, 9 (12) p1666-78, ISSN 0888-8809--Print Journal Code: 8801431
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Rev-erbA %alpha% is an orphan steroid receptor that is expressed in skeletal muscle. Rev-erbA %alpha% binds to single/tandem copies of an AGGTCA motif, is transcribed on the noncoding strand of the c-erbA- %alpha% gene locus, and is postulated to modulate the thyroid hormone (T3) response. T3 induces terminal muscle differentiation and regulates fiber type composition via direct activation of the muscle-specific myoD gene family (e.g. myoD, myogenin). The myoD gene family can direct the fate of mesodermal cell lineages and activate muscle differentiation. Hence we investigated the expression and physiological role of Rev-erbA %alpha%

during myogenesis. We observed abundant levels of Rev-erbA %alpha% mRNA in dividing C2C12 myoblasts, which were suppressed when the cells differentiated into postmitotic multinucleated myotubes. This decrease in Rev-erbA %alpha% mRNA correlated with the appearance of muscle-specific mRNAs (e.g. myogenin and %alpha%-actin). Constitutive overexpression of full length Rev-erbA %alpha% cDNA in the myogenic cells completely abolished differentiation, suppressed myoD mRNA levels, and abrogated the induction of myogenin mRNA. We then demonstrated that 1) GAL4-REV-erbA %alpha% chimeras that contain the 'AB' region and lack the 'E' region activated transcription of GAL4 response elements in the presence of 8-Br-cAMP and %2%) the ligand-binding domain (LBD) contains an active transcriptional silencer. Overexpression of Rev-erbA %alpha% (%delta% AB) in myogenic cells had no impact on the ability of these cells to morphologically or biochemically differentiate. Furthermore, this orphan receptor 1) down-regulated thyroid hormone receptor (%TR%)/T3 mediated transcriptional activity from the myogenin promoter and thyroid hormone response element (TRE) an %2%) disrupted %TR% homodimer and %TR%/retinoid X receptor (RXR) heterodimer formation on a number of TREs found in the myoD gene family. In conclusion, Rev-erbA %alpha% functions as a negative regulator of myogenesis by targeting the expression of the myoD gene family. The mechanism of action may involve inhibition of functional %TR% /RXR heterodimer formation on critical TREs and dominant trans-repression of gene expression.
Record Date Created: 19960603
Record Date Completed: 19960603

2/7/26 (Item 26 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10480311 PMID: 7539921
The N-terminal region (A/B) of rat thyroid hormone receptors %alpha% 1, beta 1, but not beta %2% contains a strong thyroid hormone-dependent transactivation function.
Tomura H; Lazar J; Phyillaier M; Nikodem V M
National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD 20892-1766, USA.
Proceedings of the National Academy of Sciences of the United States of America (UNITED STATES) Jun 6 1995, 92 (12) p5600-4, ISSN 0027-8424--Print Journal Code: 7505876
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
In this study we have investigated the role of the N-terminal region of thyroid hormone receptors (TRs) in thyroid hormone (TH)-dependent transactivation of a thymidine kinase promoter containing TH response elements composed either of a direct repeat or an inverted palindrome. Comparison of rat %TR% beta 1 with %TR% beta %2% provides an excellent model since they share identical sequences except for their N termini. Our results show that %TR% beta %2% is an inefficient TH-dependent transcriptional activator. The degree of transactivation corresponds to that observed for the mutant %TR% %delta% N beta 1/%2%, which contains only those sequences common to %TR% beta 1 and %TR% beta %2%. Thus, TH-dependent activation appears to be associated with two separate domains. The more important region, however, is embedded in the N-terminal domain. Furthermore, the transactivating property of %TR% %alpha% 1 was also localized to the N-terminal domain between amino acids 19 and 30. Using a coimmunoprecipitation assay, we show that the differential interaction of the N terminus of %TR% beta 1 and %TR% beta %2% with transcription factor IIB correlates with the %TR% beta 1 activation function. Hence, our results underscore the importance of the N-terminal region of TRs in TH-dependent transactivation and suggest that a transactivating signal is transmitted to the general transcriptional machinery via a direct interaction of the receptor N-terminal region with transcription factor IIB.
Record Date Created: 19950712
Record Date Completed: 19950712

2/7/27 (Item 27 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10197030 PMID: 7942003
Differences of LAK-activity and IL-%2% responsiveness between %alpha% /beta and gamma/%delta% T cells which developed after thymus transplantation.
Nagasawa M; Morio T; Takagi S; Yata J
Department of Pediatrics, School of Medicine, Tokyo Medical and Dental University, Japan.
Acta paediatrica Japonica; Overseas edition (AUSTRALIA) Aug 1994, 36 (4) p396-403, ISSN 0374-5600--Print Journal Code: 0370357
Publishing Model Print
Document type: Case Reports; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
A patient with severe combined immunodeficiency was transplanted with T cell depleted haploidentical bone marrow from his father and was later given a thymic graft from an unrelated donor. %alpha%/beta and gamma/%delta% T cells of bone marrow donor origin appeared only after the thymus transplantation procedure. Among the peripheral blood lymphocytes (PBL), gamma/%delta% T cells comprised 10-20% and most of them were %delta% TCS1+. The %alpha% /beta T cells were single positive cells, either CD4+ or CD8+. Expression of CD5, CD7 and CD8 %alpha%,beta molecules on %alpha%/beta T cells was reduced. Functional studies showed that gamma/%delta% T cells proliferated slightly in response to anti-CD3 stimulation, and proliferated well with exogenous IL-%2% stimulation, while %alpha%/beta T cells did not proliferate following mitogenic stimulation even in the presence of IL-%2%. gamma/%delta% T cells but not %alpha% /beta T cells exhibited some LAK activity after culturing with IL-%2%. Since %alpha%/beta T cells expressed IL-2R %alpha% and beta chains after mitogenic stimulation and bound IL-%2%, the deficit(s) in these cells was considered to occur after IL-%2% binding to the IL-2R. These results indicate thymic dependency of both types of T cells and that two types of T cells differed in the acquisition of IL-%2% responsiveness during development.
Record Date Created: 19941110
Record Date Completed: 19941110

2/7/28 (Item 28 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10000869 PMID: 8132216
Adoptive transfer of unresponsiveness to allogeneic skin grafts with hepatic gamma %delta% + T cells.
Gorczynski R M
Department of Surgery, University of Toronto, Ontario, Canada.
Immunology (ENGLAND) Jan 1994, 81 (1) p27-35, ISSN 0019-2805--Print Journal Code: 0374672
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
C3H/HEJ mice injected with irradiated multiple minor incompatible B10.BR lymphoid cells via the portal vein showed delayed rejection of subsequent B10.BR skin grafts. Similar delayed rejection was produced by lateral tail vein injection of B10.BR hepatic mononuclear cells or H-2k cells pulsed in vivo with B10 minor histocompatibility antigens. Inhibition of C3H anti-B10.BR immunity in vivo (assessed by delayed graft rejection) and in vitro (assessed by B10.BR-induced lymphokine production) can be transferred by radioresistant, plastic-adherent F4/80+33D1-CD4-CD8-%alpha% beta TcR-gamma %delta% TcR- mononuclear hepatic cells from (C3H/HEJ x C3H.SW)F1 mice injected 36 hr earlier with 100 x 10(6) irradiated spleen cells. By 10 days post-injection, cells transferring delayed rejection are radiosensitive, plastic non-adherent, F4/80-33D1-CD4-CD8- %alpha% beta Tc+-

gamma %delta% TcR+ cells. Injection of interleukin-%2% (IL-%2%) in vivo into mice receiving pretreatment with B10.BR cells via the portal vein, or adoptive transfer into such mice of immune anti-B10.BR lymphoid cells, abolished delayed rejection on subsequent skin grafting. Delayed rejection or modulation of lymphokine production was associated in all cases with suppression of IL-%2% production and preferential retention of IL-4 production from cells stimulated in vitro.
Record Date Created: 19940418
Record Date Completed: 19940418

2/7/29 (Item 29 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09380466 PMID: 1328680
T cells expressing the gamma %delta% T-cell receptor potentiate coxsackievirus B3-induced myocarditis.
Huber S A; Moraska A; Choate M
Department of Pathology, University of Vermont, Burlington 05405-0068.
Journal of virology (UNITED STATES) Nov 1992, 66 (11) p6541-6, ISSN 0022-538X--Print Journal Code: 0113724
Contract/Grant No.: HL28833; HL; NHLBI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Initial studies determined whether intraperitoneal (i.p.) injection of BALB/c mice with 0.1, 1.0, and 10 mg of adriamycin (a cardiotoxic anthracycline antibiotic) for times ranging between 1 and 9 weeks prior to i.p. injection of 10(5) PFU of coxsackievirus B3 (CVB3) would alter the severity of virus-induced myocarditis. Prior adriamycin exposure enhanced pathogenicity of a poorly pathogenic CVB3 variant (H310A1) but had no effect on myocarditis produced by the pathogenic variant (H3). Cardiac virus concentrations were equivalent in H3- and H310A1-infected mice irrespective of adriamycin treatment. BALB/c mice treated with either 0.1 ml of complete Freund's adjuvant (CFA), 10 mg of adriamycin, or 10(5) PFU of H3 and H310A1 i.p. developed cytolytic Thy 1.%2%+ lymphocytes (CTL) to H3-infected myocytes 7 days later. CFA-, adriamycin-, and H3-treated mice developed CTL expressing the gamma %delta% + T-cell receptors, while H310A1-infected animals did not. Only H3- and H310A1-infected mice developed %alpha% beta+ CTL. Treatment of BALB/c mice with 0.1 ml of CFA 5 days prior to H310A1 infection dramatically increased myocarditis. Selective depletion of gamma %delta%+ T cells abrogated this effect. The ability of gamma %delta%+ T cells to augment the pathogenicity of H310A1 infection was confirmed by adoptive transfer of CFA-stimulated T cells depleted of either gamma %delta%- or gamma %delta% + cells into H310A1-infected recipients.
Record Date Created: 19921118
Record Date Completed: 19921118

2/7/30 (Item 30 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09377974 PMID: 1402681
Peripheral engraftment of fetal intestine into athymic mice sponsors T cell development: direct evidence for thymopoietic function of murine small intestine.
Mosley R L; Klein J R
Department of Biological Science, University of Tulsa, Oklahoma 74104.
Journal of experimental medicine (UNITED STATES) Nov 1 1992, 176 (5) p1365-73, ISSN 0022-1007--Print Journal Code: 2985109R
Contract/Grant No.: DK-35566; DK; NIDDK
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Adult athymic, lethally irradiated, F1-->parent bone marrow-reconstituted (AT x BM) mice were engrafted bilaterally with day 16-18 fetal intestine or fetal thymus into the kidney capsule and were studied for evidence of peripheral T cell repopulation of 1-12 wk postengraftment. Throughout that time period, both types of grafts were macroscopically and histologically characteristic of differentiated thymus or intestine tissues, respectively. Beginning at week %2% postengraftment, clusters of lymphocytes were present within intestine grafts, particularly in subepithelial regions and in areas below villus crypts. As determined by immunofluorescence staining and flow cytometric analyses, lymphocytes from spleen and lymph nodes of sham-engrafted mice (AT x BM-SHAM) were essentially void of T cells, whereas in AT x BM thymus-engrafted (AT x BM-THG) mice, which served as a positive control for T cell repopulation, normal levels of T cells were present in spleen and lymph nodes by week 3 postengraftment, and at times thereafter. Most striking, however, was the finding that T cell repopulation of the spleen and lymph nodes occurred in AT x BM fetal intestine-engrafted (AT x BM-FIG) mice beginning 3 wk postengraftment. Based on H-%2% expression, peripheral T cells in AT x BM-FIG mice were of donor bone marrow origin, and consisted of CD3+, T cell receptor (TCR)-%alpha% /beta+ T cells with both CD4+8- and CD4-8+ subsets. Peripheral T cells in AT x BM-FIG mice were functionally mature, as demonstrated by their capacity to proliferate after stimulation of CD3 epsilon. Moreover, alloreactive cytotoxic T lymphocytes were generated in primary in vitro cultures of spleen cells from AT x BM-FIG and AT x BM-THG mice, though not in spleen cell cultures from AT x BM-SHAM mice. Histologic studies of engrafted tissues 3-4 wk postengraftment demonstrated that thymus leukemia (TI) antigens were expressed on epithelial surfaces of intestine grafts, and that both TCR-%alpha%/beta+ and TCR-gamma/%delta%+ lymphocytes were present in intestine grafts. Collectively, these findings indicate that the murine small intestine has the capacity to initiate and regulate T cell development from bone marrow precursors, thus providing a mechanism by which extrathymic development of intestine lymphocytes occur.
Record Date Created: 19921125
Record Date Completed: 19921125

2/7/31 (Item 31 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09354273 PMID: 1326520
The rod transducin %alpha% subunit amino terminus is heterogeneously fatty acylated.
Neubert T A; Johnson R S; Hurley J B; Walsh K A
Howard Hughes Medical Institute, University of Washington, Seattle 98195.
Journal of biological chemistry (UNITED STATES) Sep 15 1992, 267 (26) p18274-7, ISSN 0021-9258--Print Journal Code: 2985121R
Contract/Grant No.: EY06641; EY; NEI; HL40990; HL; NHLBI; RR0553; RR; NCRR
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Rod transducin (%Tr%), a heterotrimeric GTP-binding protein composed of %alpha% , beta, and gamma subunits, couples photolysis of rhodopsin to the activation of cyclic GMP phosphodiesterase in the vertebrate visual signal transduction cascade. To determine if T %alpha% r is covalently modified, we analyzed tryptic fragments of bovine retinal T %alpha% r using electrospray mass spectrometry, liquid chromatography/mass spectrometry, tandem mass spectrometry, and gas chromatography. A novel heterogeneous fatty acylation was detected at the NH2 terminus. Four types of NH2-terminal tryptic fragments of T %alpha% r were isolated, and each contained either a lauroyl (C12:0), myristoyl (C14:0), (cis-%delta% 5)-tetradecaenoyl (C14:1) or (cis,cis-%delta% 5, %delta% 8)-tetradecadienoyl (C14:%2%) fatty acyl residue amide-linked to the NH2-terminal glycine residue. NH2-terminal fatty acylation does not anchor T %alpha% r permanently in the membrane, since T %alpha% r used in these experiments was eluted without detergent from rod outer segment membranes.

Record Date Created: 19921019
Record Date Completed: 19921019

2/7/32 (Item 32 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09349435 PMID: 1523274
[Studies of the correlations between morphological brain changes on MRI and computerized EEG changes in schizophrenics]
Takeuchi K
Department of Neuropsychiatry, Faculty of Medicine, Kagoshima University.
Seishin shinkeigaku zasshi = Psychiatria et neurologia Japonica (JAPAN) 1992, 94 (6) p584-604, ISSN 0033-2658--Print Journal Code: 9801787
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Several researchers have investigated the relationships between computed tomographic and electroencephalographic abnormalities in schizophrenics. In this present investigation, 28 medicated schizophrenic patients fulfilling the DSM-III-R criteria for schizophrenia and 21 normal volunteers were studied by means of MRI and EEG examinations. All subjects had given informed consent to the investigation. The schizophrenic patients (14 males, 14 females) were aged from 21 to 39 with a mean age of 30.%2%. The control group consisted of age- and sex-matched healthy volunteers (11 males, 11 females) with no history of neurological disease or head trauma. All the subjects were right-handed as determined by the Edinburgh Inventory. Schizophrenic and control subjects underwent MRI scan and EEG within two weeks. Three trained psychiatrists evaluated patients for BPRS and SANS and the score each item was the median of the three raters. MRI scans were performed by a Asahi Super 200 scanner operating at a %2%.0 Tesla magnetic field. A midsagittal scan (8 mm thickness, Spin Echo 500/26) was taken. Subsequently, 15 axial and coronal slices of 5 mm interslice with %2% mm gap were obtained using an Inversion-Recovery sequence (%TR%: 3000, TI: 800, TE: 14). For measurement purposes, the three MRI scans (Fig-1) were recorded on transparent film, and the boundaries of the cerebral structures were taken traced from the film onto a digitizing tablet. The EEGs were recorded from 16 scalp electrodes of the standard 10/20 system referenced to linked ear electrodes at rest and digitized by a topographic system (Neuromap system MCE-5100, QCE-510B, Nihon Kohden). To calculate EEG power, the frequency spectrum was divided into six EEG frequency bands by 0.25 Hz bands. Each power value was taken from the average percentage of total power and then log-transformed. Schizophrenic patients showed a significantly larger VBR on the axial and coronal planes than control subjects. The areas of the bilateral anterior horns, left body, left posterior horn of the lateral ventricle and the third ventricle were significantly larger in schizophrenic patients than in control subjects. The area of middle half of the corpus callosum in schizophrenic patients was smaller than in control subjects. Schizophrenic patients showed more %delta% and theta activities in the centro-parieto-occipital regions than control subjects. Schizophrenic patients also showed more beta 1 and beta %2% activities in front-central regions than control subjects. On the other hand, schizophrenic patients showed a markedly decrease in %alpha% %2% activity in all regions.(ABSTRACT TRUNCATED AT 400 WORDS)
Record Date Created: 19921015
Record Date Completed: 19921015

2/7/33 (Item 33 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09255320 PMID: 1318505
The unique C-termini of the thyroid hormone receptor variant, c-erbA %alpha% %2%, and thyroid hormone receptor %alpha% 1 mediate different DNA-binding and heterodimerization properties.
Katz D; Berrodin T J; Lazar M A
Department of Medicine, University of Pennsylvania School of Medicine, Philadelphia 19104.
Molecular endocrinology (Baltimore, Md.) (UNITED STATES) May 1992, 6 (5) p805-14, ISSN 0888-8809--Print Journal Code: 8801431
Contract/Grant No.: 1RO1DK-43806-01; DK; NIDDK
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Thyroid hormone receptors (TRs) mediate the regulation of gene transcription by thyroid hormone (T3) by binding to T3-responsive elements (TREs) in target genes. c-erbA %alpha% %2% is a C-terminal %TR% variant which does not bind T3 and is a dominant inhibitor of T3 action. When synthesized in Escherichia Coli, %alpha% %2% formed two TRE-binding complexes similar to the monomeric and homodimeric forms of %TR% %alpha% 1. However, %alpha% %2% did not bind nearly as well as %TR% %alpha% 1. Furthermore, %alpha% %2% failed to bind DNA with proteins that heterodimerized with %TR% %alpha% 1. %TR% %alpha% 1 and %alpha% %2% also did not bind DNA as heterodimers with one another. The differences between %TR% %alpha% 1 and %alpha% %2% were further analyzed by studying a variety of C-terminal mutants synthesized in reticulocyte lysates. Deletion of the last 20 of the 122 unique amino acids (aa) of %alpha% %2% increased its DNA binding to approximately the level of %TR% %alpha% 1, indicating that the C-terminus of %alpha% %2% is an inhibitory domain. This %alpha% %2% mutant (%alpha% %2% %delta% C) was still unable to heterodimerize with nuclear proteins, as were C-terminal deletion mutants of %TR% %alpha% 1. We hypothesized that fusion of %TR% %alpha% 1-specific sequences to the C-terminus of %alpha% %2% %delta% C would transfer the property of heterodimerization. Indeed, although %alpha% %2%/%alpha% 1 chimeras containing the last 40 and 70 aa of %TR% %alpha% 1 failed to heterodimerize with nuclear proteins, addition of the last 100 or 150 aa of %TR% %alpha% 1 did render %alpha% %2% %delta% C heterodimerization competent. Thus, %TR% %alpha% 1 contains a C-terminal structure which is necessary for heterodimerization and can confer this property on %alpha% %2%, which lacks this domain. The effects of the unique C-termini of %TR% %alpha% 1 and %alpha% %2% on their in vitro DNA binding have important implications for their mechanisms of action in vivo.
Record Date Created: 19920716
Record Date Completed: 19920716

2/7/34 (Item 34 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09126060 PMID: 1821695
T-lymphocyte subsets in the embryonic spleen undergoing a graft-versus-host reaction.
Fedecka-Bruner B; Vaigot P; Desveaux-Chabrol J; Gendreau M; Kroemer G; Dieterlen-Lievre F
Institut d'Embryologie,-CNRS, Paris, France.
Developmental immunology (SWITZERLAND) 1991, 1 (3) p163-8, ISSN 1044-6672--Print Journal Code: 9200624
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Allogeneic immunocompetent T cells injected into chicken embryos induce a graft-versus-host reaction (GVHR) whose most prominent manifestation is splenic hyperplasia. The highly inbred CC and CB strains of chickens used here are, respectively, homozygous for the B4 or B12 MHC haplotypes. By means of a panel of immunological reagents, including alloantisera and monoclonal antibodies against public domains of the T-cell receptor, CD4, CD8, and the inducible interleukin-%2%-receptor light chain (CD25), it is shown that the bulk of cells in the enlarged spleen are of host origin and do not express markers typical of mature T or B lymphocytes. Among recipient splenocytes, the quantitatively most important population consists of TCR %alpha% beta-TCR gamma %delta% - CD4-CD8+CD25+ (TCR0)

lymphocytes. Donor cells encountered in the spleen prevalently exhibit a TCR %alpha% beta+CD4+CD8-CD25+ phenotype and proliferate in vivo. The data demonstrate that nonspecific host and potentially specific donor-derived cellular elements contribute to splenomegaly.
Record Date Created: 19920826
Record Date Completed: 19920826

2/7/35 (Item 35 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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09031240 PMID: 1836199
Regulation of T-cell sensitization at epithelial surfaces in the respiratory tract: suppression of IgE responses to inhaled antigens by CD3+ Tcr %alpha%-/beta- lymphocytes (putative gamma/%delta% T cells).
McMenamin C; Oliver J; Girn B; Holt B J; Kees U R; Thomas W R; Holt P G
Division of Cell Biology, Western Australian Research Institute for Child Health, Princess Margaret Hospital, Subiaco.
Immunology (ENGLAND) Oct 1991, 74 (2) p234-9, ISSN 0019-2805--Print Journal Code: 0374672
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Repeated exposure of Brown Norway rats to an aerosol of ovalbumin (OVA) induced a state of antigen-specific immunological tolerance, particularly in the IgE isotype. Tolerance was transferable to naive syngeneic animals by inoculation of splenic T cells from tolerant rats. Sequential depletion of tolerant spleen cells by sorting techniques prior to adoptive transfer, employing T-cell subset-specific monoclonal antibodies, indicated that the cells mediating tolerance were CD3+, CD4-, CD5+ and CD8+, but lacked %alpha% or beta chains in the T-cell receptor (TcR), suggesting that they may be part of the gamma/%delta% T-cell lineage. Consistent with this suggestion, the sorted population demonstrated considerable enrichment for TcR gamma chain-specific mRNA. As few as %2% x 10(3) cells are sufficient to adoptively transfer tolerance in 200-g adult rats in this model.
Record Date Created: 19920121
Record Date Completed: 19920121

2/7/36 (Item 36 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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08933176 PMID: 1832139
Interleukin-%2% stimulated T cell receptor V gamma 3 positive thymocytes do not migrate to the skin.
Leclercq G; De Smedt M; Plum J
Laboratory of Bacteriology, Virology and Immunology, University of Ghent, Belgium.
Immunology letters (NETHERLANDS) May 1991, 28 (2) p135-41, ISSN 0165-2478--Print Journal Code: 7910006
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
T cell receptor (TcR) V gamma 3+ thymocytes, which only develop in the fetal thymus, migrate to the skin. IL-%2% stimulation of fetal day 18 murine thymocytes results in a cell population of which 45% of the cells express the TcR V gamma 3. In this study, we describe that those IL-%2% cultured TcR V gamma 3+ thymocytes have the killing capacity of lymphokine activated killer cells: NK-susceptible as well as NK-resistant tumor cell lines were killed in an MHC-unrestricted manner. Because of these findings, IL-%2% -expanded TcR V gamma 3+ thymocytes could have a potential use in adoptive immunotherapy for skin-located tumors. Therefore, we analyzed the migration pattern of IL-%2%-cultured TcR V gamma 3+ thymocytes upon i.v. injection. We describe their initial entrapment in the lungs and subsequent accumulation in the liver. Localization in the skin was practically absent, and did not differ from that of IL-%2% cultured adult thymocytes (mainly TcR %alpha% beta +). The migration pattern was identical in adult and newborn normal mice, and in adult nude mice. Analysis of the expression of asialo-GM1 revealed that it increased strongly after IL-%2% culture. The relevance of this change in asialo-GM1 expression with reference to the migration upon i.v. injection is discussed. This study indicates that an improved understanding of the determinants of in vivo localization of IL-%2% cultured cells may lead to improved strategies for adoptive immunotherapy of cancer.
Record Date Created: 19911009
Record Date Completed: 19911009

2/7/37 (Item 37 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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08904675 PMID: 1713988
Thrombolytic properties of a novel modified human tissue-type plasminogen activator (E6010): a bolus injection of E6010 has equivalent potency of lysing young and aged canine coronary thrombi.
Suzuki S; Saito M; Suzuki N; Kato H; Nagaoka N; Yoshitake S; Mizuo H; Yuzuriha T; Yui Y; Kawai C
Tsukuba Research Laboratories, Eisai Co., Ltd., Ibaraki, Japan.
Journal of cardiovascular pharmacology (UNITED STATES) May 1991, 17 (5) p738-46, ISSN 0160-2446--Print Journal Code: 7902492
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The thrombolytic properties of a novel modified human tissue plasminogen activator (E6010), in which cystein 84 in the epidermal growth factor domain is replaced by serine and that has a prolonged biological half-life, were examined. The thrombolytic efficacies of E6010 and recombinant human tissue plasminogen activator (rt-PA) on the duration of coronary artery thrombus were evaluated in a canine model (123 anesthetized dogs) with copper coil-induced left anterior descending coronary artery thrombus. Thrombi established for periods of 1, 3, or 6 h, as documented by coronary arteriography, were employed. A single bolus i.v. injection of E6010 or rt-PA and an i.v. infusion of rt-PA over 60 min were compared (n = 6). Thrombolytic efficacy was evaluated by three criteria: time to reperfusion (%TR%), reperfusion rate at 60 min (RR), and reocclusion rate at 60 min after reperfusion (OR). With a bolus i.v. injection of E6010 at a dose of 0.%2% mg/kg or an i.v. infusion of rt-PA at a dose of 0.6 mg/kg/h, these parameters were as follows: %TR%, 30.0 +/- 15.3 and 27.5 +/- 4.8 min; RR, 100 and 100%; OR, 17 and 33% for 1-h aged thrombi; %TR%, 30.0 +/- 9.5 and 35.0 +/- 8.%2% min; RR, 83 and 50%; OR, 20 and 67% for 6-h aged thrombi. These data indicate that a bolus injection of E6010 is almost equally efficacious in lysing thrombi aged both 1 and 6 h. On the other hand, in the case of rt-PA, the thrombi aged 6 h were lysed significantly less than the thrombi aged 1 h. Plasma half-lives of E6010 were t1/%2% %alpha%, 4.8 +/- 0.95 (estimated by antigen level) and 3.0 +/- 0.78 min (estimated by activity), and t1/%2% beta, 51 +/- 5.4 (antigen level) and 22 +/- 7.0 min (activity). The half-lives of rt-PA were t1/%2% %alpha%, 3.6 +/- 0.23 (antigen level) and %2%.1 +/- 0.61 min (activity), and t1/%2% beta, 36 +/- %2% .3 (antigen level) and 7.0 +/- 3.5 min (activity). We conclude that a bolus injection of E6010 may have a more potent and longer-lasting effect than i.v.-infused rt-PA in clot lysis therapy.
Record Date Created: 19910911
Record Date Completed: 19910911

2/7/38 (Item 38 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

08891601 PMID: 1713249
Abnormal thymic development, impaired immune function and gamma %delta% T

cell lymphomas in a TL transgenic mouse strain.
Obata Y; Taguchi O; Matsudaira Y; Hasegawa H; Hamasima N; Takahashi T
Laboratory of Immunology, Aichi Cancer Center Research Institute, Nagoya, Japan.
Journal of experimental medicine (UNITED STATES) Aug 1 1991, 174 (2) p351-62, ISSN 0022-1007--Print Journal Code: 2985109R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
During derivation of transgenic mouse strains with various TL and TL/H-%2% chimeric genes, one strain, Tg.Tlaa-3-1, introduced with a TL gene (Tlaa-3), was found to have an abnormal thymic T cell population and to develop a high incidence of T cell lymphomas. To investigate the etiology of the thymic abnormalities and of the lymphomas, the development of lymphoid organs in transgenic mice was studied. The thymus of these mice goes through three unusual successive events: perturbation of thymic development during embryogenesis, disappearance of thymocytes between day 14 and day 21 after birth, and subsequent proliferation of large blast-like cells. These events are associated with the abolishment of T cell receptor (TCR) %alpha% beta lineage of the T cell differentiation, leading to preponderance of cells belonging to the TCR gamma %delta% L3T4-Lyt-%2%- double negative (DN) lineage. Bone marrow transplantation and thymic graft experiments demonstrate that the abnormality resides in the bone marrow stem cells rather than in the thymic environment. The expression of TL antigen in the transgenic mice is greatly increased and TL is expressed in a wide range of T cells, including normally TL- DN cells and L3T4+ Lyt-%2%- and L3T4-Lyt-%2%+ single positive cells. These quantitative and qualitative abnormalities in TL expression most likely cause the abnormal T cell differentiation. The gamma %delta% DN cells migrate into peripheral lymphoid organs and constitute nearly 50% of peripheral T cells. Immune function of the transgenic mice is severely impaired, as T cell function is defective in antibody production to sheep red blood cells, in mixed lymphocyte culture reaction to allogenic spleen cells and also in stimulation with concanavalin A. These results indicate that the gamma %delta% cells are incapable of participating in these reactions. Molecular and serological analysis of T cell lymphomas reveal that they belong to the gamma %delta% lineage, suggesting that the gamma %delta% DN cells in this strain are susceptible to leukemic transformation. Based on cell surface phenotype and TCR expression of the DN thymocytes and T cell lymphomas, a map of the sequential steps involved in the differentiation of gamma %delta% DN cells is proposed.(ABSTRACT TRUNCATED AT 400 WORDS)
Record Date Created: 19910828
Record Date Completed: 19910828

2/7/39 (Item 39 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08839454 PMID: 1674954
Clonal analysis of the peripheral T cell compartment of the SCID-hu mouse.
Vandekerckhove B A; Krowka J F; McCune J M; de Vries J E; Spits H; Roncarolo M G
DNAX Research Institute, Palo Alto, CA 94304.
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Jun 15 1991, 146 (12) p4173-9, ISSN 0022-1767--Print Journal Code: 2985117R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Severe combined immunodeficiency (SCID) mice can be transplanted successfully with human fetal liver and thymus (SCID-hu mice). Precursor cells derived from the fetal liver differentiate in the thymus and migrate into the blood as mature T cells. In the present paper, the peripheral T cell compartment of such mice was studied. Peripheral WBC were activated by PHA and cultured in the presence of irradiated human feeder cells. The resultant cell population consisted exclusively of human CD1- CD2+ CD3+ CD7+ T lymphocytes; up to 4% of the T cells expressed the TCR gamma %delta% , whereas 95 to 100% were TCR %alpha% beta +. The CD4bright (42 to 66%) and CD8bright (30 to 54%) populations coexpressed variable but low levels of CD8 and CD4, respectively. The T cell cultures from the SCID-hu mice did not display reactivity towards the autologous human EBV-transformed B cell lines (B-LCL). On the other hand, these human T cells proliferated and were cytotoxic against allogeneic human B-LCL. T cell clones were established from cultured SCID-hu T cells. All T cell clones were TCR %alpha% beta + CD3+ CD2+; 61% of the clones were CD4+ CD8-, 27% were CD8+ CD4-, 11% were CD8+ CD4lo, and %2%% were CD4+ CD8lo. None of these clones recognized the autologous B-LCL established from the fetal human donor. Fourteen of 100 T cell clones had specific alloreactivity, as tested on a panel of five B-LCL. Of these 14, two CD8+ CD4lo and two CD8+ CD4- clones were cytotoxic and did not proliferate in response to specific stimulator cells. Furthermore, two CD4+ CD8lo and eight CD4+ CD8- clones proliferated specifically in response to alloantigens. In conclusion, the peripheral human T cells of SCID-hu animals are functional and their TCR repertoire is polyclonal, alloreactive, and devoid of self-reactive cells. Therefore, the SCID-hu mouse can be a suitable model for the study of alloreactivity and allotolerance in vivo, as well as for the study of negative selection in the human thymus.
Record Date Created: 19910710
Record Date Completed: 19910710

2/7/40 (Item 40 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08828586 PMID: 1827814
Human T cells in the SCID-hu mouse are phenotypically normal and functionally competent.
Krowka J F; Sarin S; Namikawa R; McCune J M; Kaneshima H
SyStemix, Inc., Palo, Alto, CA 94303.
Journal of immunology (Baltimore, Md. - 1950) (UNITED STATES) Jun 1 1991, 146 (11) p3751-6, ISSN 0022-1767--Print Journal Code: 2985117R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
SCID-hu mice are heterochimeric animals that are constructed by transplanting human fetal thymus (Thy), liver (Liv), and/or lymph nodes into congenitally immunodeficient C.B-17 scid/scid (SCID) mice. Sensitive and specific two-color flow cytometric assays were used to evaluate human lymphocytes from peripheral blood of SCID-hu mice. Kinetic studies presented in this report show long term T lymphopoiesis in SCID-hu mice. Approximately one-half of SCID-hu mice constructed with Thy and Liv tissue develop detectable levels of circulating human T cells by 4 mo after transplantation. The average level of circulating human cells in SCID-hu mice is generally less than %2% % of the total lymphoid cells in the peripheral blood of these mice. Some SCID-hu mice with as high as 13% human lymphocytes, however, have been detected. Nearly all human cells in the peripheral blood of SCID-hu mice are CD3+ cells that express TCR-%alpha% beta. The percentages of gamma %delta%+, CD4+, CD8+, CD25+, CD69+, and Leu-8+ cells among CD45+ cells in SCID-hu blood are similar to the levels found in adult peripheral blood. On average, 74% of SCID-hu T cells express CD45RA and 18% express CD29. Functional studies demonstrate that cells from SCID-hu Thy/Liv grafts or human T cells from SCID-hu peripheral blood are functionally competent to respond to mitogens or allogeneic human cells in vitro. They are similar to fetal thymocytes or adult T cells, respectively, in these responses. These studies demonstrate that the SCID-hu mouse is a useful model for the analysis of human immune differentiation and function in vivo.
Record Date Created: 19910625
Record Date Completed: 19910625

2/7/41 (Item 41 from file: 155)

DIALOG(R)File 155:MEDLINE(R)
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08720967 PMID: 1982603
Molecular studies on LAK cells.
Fagioli M; Care A; Ciccone E; Moretta L; Moretta A; Testa U; Falini B; Grignani F; Peschle C; Pelicci P G
Istituto di Clinica Medica I, Universita degli Studi di Perugia, Policlinico Monteluce, Italy.
Annali dell'Istituto superiore di sanita (ITALY) 1990, 26 (3-4) p357-68, ISSN 0021-2571--Print Journal Code: 7502520
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We have developed a culture system for long-term growth of human LAK cells exhibiting an elevated, wide-spectrum anti-tumor cytotoxicity. The phenotypic and molecular properties of the final LAK cell populations indicated that they consist of three main types: a) NK-like lymphocytes (type I): NKH-1+, Ti %alpha%/beta-, Ti gamma/%delta%-, CD3-lymphocytes carrying the germline configuration of all TCR genes and expressing variable amount of the 1.0 beta mRNA and variably sized T %delta% transcripts; b) gamma/%delta%-like T lymphocytes (type II) NKH-1+, Ti %alpha%/beta-, Ti gamma/%delta% +, CD3+ lymphocytes carrying polyclonal rearrangements of the gamma and %delta% genes and expressing high levels of mature gamma and %delta% transcripts; c) %alpha%/beta-like T lymphocytes (type III): NKH-1+, Ti %alpha%/beta+, Ti gamma/%delta%-, CD3+ lymphocytes carrying rearrangements of all TCR genes and expressing high levels of mature %alpha% and beta transcripts. We took advantage of the high number of available LAK cells to clarify: 1) the origin of the NK-LAK %delta% transcripts. %delta% gene expression in LGL, NK clones and type I LAK cultures revealed six %delta% transcripts (3.5, 3.1, %2%.%2%, %2%.0, 1.5 and 1.3 kb), which varied in number and relative abundance in the different samples. None of the six known V %delta% was expressed and the %delta% locus was retained in its germline configuration suggesting that the %delta% expression is due to a partially rearranged or germline transcripts; %2%) the origin of the NK-LAK truncated T beta transcript. We isolated two different clone types from a type I LAK cell cDNA library: a) J-C clones consisting of one of three J beta regions and the corresponding C beta 1 or C beta %2% regions; b) X-J-C and C-X clones, containing as yet unidentified (X) sequences. The presence of RSSs in J-C clones suggests that they derive from mRNAs transcribed from a promoter in the 5'J. Nucleotide analysis demonstrated that only one of the isolated clones had the potential to code a short T beta protein.
Record Date Created: 19910604
Record Date Completed: 19910604

2/7/42 (Item 42 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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07859337 PMID: 2848921
Involvement of the interleukin %2% pathway in the rearrangement and expression of both %alpha%/beta and gamma/%delta% T cell receptor genes in human T cell precursors.
Toribio M L; de la Hera A; Borst J; Marcos M A; Marquez C; Alonso J M; Barcena A; Martinez C
Centro de Biologia Molecular, Consejo Superior de Investigaciones Cientificas, Universidad Autonoma de Madrid, Spain.
Journal of experimental medicine (UNITED STATES) Dec 1 1988, 168 (6) p2231-49, ISSN 0022-1007--Print Journal Code: 2985109R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
In this report, we have undertaken the phenotypic, functional and molecular characterization of a minor (less than 5%) subpopulation of adult thymocytes regarded as the earliest intrathymic T-cell precursors. Pro-T cells were immunoselected and shown to express different hematopoietic cell markers (CD45, CD38, CD7, CD5) and some activation-related molecules (4F2, %Tr% , HLA class II), but lack conventional T cell antigens (CD2-1-3-4-8-). TCR-gamma RNA messages are already expressed at this early ontogenic stage, while %alpha% and beta chain TCR genes remain in germline configuration. In vitro analyses of the growth requirements of pro-T cells demonstrated the involvement of the IL-%2% pathway in promoting their proliferation and differentiation into CD3+ CD4+ or CD8+ mature thymocytes. Moreover, during the IL-%2% -mediated maturation process rearrangements and expression of both %alpha% and beta chain TCR genes occurred, and resulted in the acquisition of %alpha%/beta as well as gamma/%delta% (either disulphide-linked or non-disulphide-linked) heterodimeric TCR among the pro-T cell progeny.
Record Date Created: 19890117
Record Date Completed: 19890117

2/7/43 (Item 43 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

05871866 PMID: 7122444
[Individual characteristics of the organization of the human endocrine system]
Individual'nye osobennosti organizatsii endokrinnoi sistemy cheloveka.
Gorozhanin V S
Problemy e ndokrinologii (USSR) Jul-Aug 1982, 28 (4) p33-9, ISSN 0375-9660--Print Journal Code: 0140673
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Individual features of the endocrine system were studied in 26 healthy men, divided into %2% groups, according to the characteristics of EEG, electrocutaneous thresholds and the time response (%TR%) upon sound signals of 40 to 120 decibels. The subjects of the 1st group were characterized by the high energy of EEG %delta%- and theta-rhythms, low energy of %alpha% -rhythm, low thresholds and TR40 : TR120 ratio. The patients of the 2nd group had the opposite parameters. In both groups the blood plasma and urine catecholamine content, ACTH, TTH, 11-hydroxycorticosteroids, cortisol, aldosterone, thyroxine, triiodothyronine, testosterone and plasmatic insulin were determined by means of spectrofluorometry and radioimmunoassay. The elevation of the cortisol level after ACTH injection and of the TTH concentration following thyroliberin administration were investigated. Two polar variants of the endocrine system organization were revealed. The patients of the 1st group had an elevated activity of the sympathico-adrenal, hypophyseal-adrenal system and insular apparatus, comparatively lowered activity of the hypophyseal-thyroid system and gonads. The subjects of the 2nd group demonstrated an opposite character of the endocrine system. It is suggested that the individual peculiarities of the human endocrine system promote the development of obesity, Icenko-Cushing's disease, hypertension, thyrotoxicosis, acromegaly and bronchial asthma.
Record Date Created: 19821202
Record Date Completed: 19821202

2/7/44 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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19161027 BIOSIS NO.: 200600506422
Regulation of gut gene expression by thyroid hormone receptor variants
AUTHOR: Munene Gitonga; Malo Madhu S; Mozumder Moushumi; Zhang Wenying; Pushpakaran Premraj; Hodin Richard A
JOURNAL: Gastroenterology 130 (4, Suppl. 2): pA909-A910 APR 2006 2006
CONFERENCE/MEETING: Digestive Disease Week Meeting/107th Annual Meeting of the American-Gastroenterological-Association Los Angeles, CA, USA May 19

-24, 2006; 20060519
SPONSOR: Amer Gastroenterol Assoc Inst
ISSN: 0016-5085
DOCUMENT TYPE: Meeting; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: INTRODUCTION: Thyroid hormone (T3) plays a critical role in gut development and homeostasis. T3 action is mostly mediated through its nuclear receptors, %TR% %alpha% 1 and %TR% beta 1, the bona-fide %TR% isoforms that contain both DNA and hormone binding domains. However, it has recently become clear that several %TR% variants also exist, notably %TR% %Delta% %alpha% 1 and %TR% %alpha% %2%, which lack the DNA and/or hormone binding domains. The present studies were undertaken to define the role of these %TR% variants in the context of a T3-regulated gut-specific gene, intestinal alkaline phosphate (LAP), an enterocyte differentiation marker that limits fat absorption. METHODS: Transient transfections were performed in Caco-%2% cells with an IAP-Luciferase reporter plasmid and the bona-fide %TR% %alpha% 1 +/- the %TR% variants. RNA was extracted and subjected to RT-PCR to assess effects on endogenous gene expression. EMSA were performed with radiolabeled DNA corresponding to the IAP T3 response element (LAP-TRE) and in vitro synthesized proteins. RESULTS: IAP-Luc reporter assays showed that %TR% %alpha% 1 activated the IAP gene approximately 8-fold, confirming our previously published data. RTPCR (standard and real time) also confirmed the endogenous IAP gene induction by %TR% %alpha% 1. The %TR% variants, TRA %alpha% 1 and %TR% %alpha% %2%, had no effects alone on IAP activation, but in co-transfections each was able to inhibit the TRI-mediated activation of IAP. These effects of the %TR% inhibitors were directly related to the dosage of plasmid transfected. In addition, real-time PCR demonstrated that the %TR% variants caused dramatic inhibition of %TR% %alpha% 1-mediated endogenous IAP gene activation (approximately 80% and 60%, respectively). This inhibition of IAP gene activation was specific to the T3 pathway, since there was no inhibition of the Cdx1 transcription factor-mediated IAP activation. As expected, EMSA confirmed that %TR% %alpha% %2%, but not %TR% %Delta% %alpha% 1, binds to the IAP-TRE. CONCLUSION: The two naturally occurring %TR% variant isoforms (%TR% %Delta% %alpha% 1 and TRa2) repress %TR% %alpha% 1-mediated activation of the IAP gene through distinct mechanisms, indicating that there is a complex interplay among the various %TR% proteins in modulating the physiological effects of T3 in the gut.

2/7/45 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

19158303 BIOSIS NO.: 200600503698
Characterization of molecular targets of the thyroid hormone signalling pathway in intestine epithelium progenitor cells
AUTHOR: Kress Elsa; Samarut Jacques; Plateroti Michela
JOURNAL: Gastroenterology 130 (4, Suppl. 2): pA332 APR 2006 2006
CONFERENCE/MEETING: Digestive Disease Week Meeting/107th Annual Meeting of the American-Gastroenterological-Association Los Angeles, CA, USA May 19 -24, 2006; 20060519
SPONSOR: Amer Gastroenterol Assoc Inst
ISSN: 0016-5085
DOCUMENT TYPE: Meeting; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Hypothyroid newborn mice show a strongly altered development of the small intestine with a deep reduction in the number of proliferating epithelial progenitor cells within the intestinal crypts (1). Inactivating either the a or the beta isotype of thyroid hormone receptors (TRs) in mice, showed that the %TR% %alpha% 1 receptor is the major actor mediating T3 signalling in these cell., (%2%, 3). in order to analyse the mechanisms responsible, we studied the expression of gene, belonging to and/or activated by the Wnt/beta-catenin pathway, a major actor in the control of physiological and pathological epithelial proliferation in the intestine (4). We show that T3-%TR% %alpha% 1 controls the transcription of the beta-catemn gene in an epithelial cell-autonomous way. This is parallel to a positive regulation of proliferation-controlling genes such as type D cyclins and c-myc, known targets of the Wnt/beta-catenin. In addition, we show that the regulation of the P-catenin gene is direct as %TR% binds in vitro and in chromatin in vivo to specific Thyroid Hormone Responsive Element present in the intron I of this gene (Plateroti et al, under revision). As Wnt/beta-catenin plays a crucial role in intesimal tumorigenesis, our observation opens a new perspective on the study of TRs in intestinal pathology. To further elucidate and to analyse in detail the molecular mechanisms which govern the thyroid hormone-dependent response of intestine epithelial cell progenitors, we are currently using two different experimental approaches: 1.Analysis of intestine epithelium regeneration after gamma-ray treatment of WT and %TR% mutant mice. This will enable to clarify whether the TH signalling pathway plays a role in this function and which are the molecular mechanisms. %2%. Gene profiling of crypt cells isolated by laser microdissection from WT and %TR% KO intestines. Afftmetrix microarray technology has been used to compare the pattern of expression of genes increased or decreased in %TR% mutants compared to the WT. Bioinformatic analysis is going to be performed. Bibliography 1.Flamant, et al. 2002. Congenital hypothyroid Pax8(-/-) mutant mice can be rescued by inactivating the TRalpha gene. Mol Endocrinol, 16: %2% 4-32. %2%.Plateroti et al. 1999, Involvement of T3Ralpha- and beta-receptor subtypes in mediation of T3 functions during postnatal murine intestinal development. Gastroenterology, 116: 1367-1378. 3.Plateroti et al. 2001. Functional interference between thyroid hormone receptor %alpha% (TRalpha) and natural truncated TRDeltaalpha isoformis in the control of intestine development. Mol Cell Biol, 21: 4761-4772. 4.Moon et al. 2004. WNT and beta-catenin signalling: diseases and therapies.

2/7/46 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18804540 BIOSIS NO.: 200600149935
Isolation and characterization of a transcriptional cofactor and its novel isoform that bind the deoxyribonucleic acid-binding domain of peroxisome proliferator-activated receptor-gamma
AUTHOR: Tomaru Takuya; Satoh Teturou (Reprint); Yoshino Satoshi; Ishizuka Takahiro; Hashimoto Koshi; Monden Tsuyoshi; Yamada Masanobu; Mori Masatomo
AUTHOR ADDRESS: Gunma Univ, Grad Sch Med, Dept Med and Mol Sci, 3-39-15 Showa Machi, Maebashi, Gumma 3718511, Japan**Japan
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JOURNAL: Endocrinology 147 (1): p377-388 JAN 2006 2006
ISSN: 0013-7227
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Using the DNA-binding domain (DBD) and hinge region of human peroxisome proliferator-activated receptor (PPAR)-gamma as bait in yeast two- hybrid screen, we isolated partial cDNA identical with that of the C terminal of KIAA1769. KIAA1769 encodes a 2080-amino acid protein (molecular mass, 231 kDa) that was recently identified to interact with PPAR %alpha% and termed PPAR %alpha%-interacting cofactor 285 (here referred to as PPAR gamma-DBD- interacting protein 1 (PDIP1)-%alpha%). PDIP1 mRNA was expressed in 3T3- L1 adipocytes and THP-1 macrophages. We also identified the expression of the N terminal extended form of PDIP1 %alpha% (referred to as PDIP1 beta) consisting of 2649 amino acids (295 kDa) in human cultured cell lines by RT-PCR, and 5' rapid amplification of cDNA ends. Ribonuclease protection assay revealed that PDIP1 beta mRNA was expressed more abundantly than PDIP1 %alpha% mRNA. The C-terminal region of PDIP1 directly binds DBD of PPAR gamma, and multiple LXXLL motifs in PDIP1 were not required for the interaction. PDIP1 %alpha% and -beta similarly enhanced PPAR %alpha%-mediated transactivation in transfection assays and short interfering RNA targeting PDIP1 mRNA

significantly reduced transactivation by PPAR gamma. No potent intrinsic activation domain was identified in either PDIP1 isoforms in mammalian one-hybrid assays, and mutation of all LXXLL motifs did not affect enhancement of PPAR gamma-mediated transactivation. PDIP1 %alpha% and -beta similarly augmented transactivation by PPAR %alpha%, PPAR %delta%, thyroid hormone receptor (%TR%)-%alpha% 1, %TR% beta 1, and retinoid X receptor-%alpha%. PDIP1 %alpha% also enhanced estrogen receptor %alpha%- and androgen receptor-mediated transactivation, whereas PDIP1 beta did not. PDIP1 %alpha% showed receptor- specific synergism with activation function-%2%-interacting coactivators in PPAR gamma- and %TR% beta 1-mediated transactivation. Together, PDIP1 might function as a transcriptional cofactor for a broad range of nuclear receptors, possibly in collaboration with specific activation function- %2% interacting coactivators.

2/7/47 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18558582 BIOSIS NO.: 200510253082
Cone opsin patterning in the mouse retina is controlled by thyroid hormone receptor beta %2%
AUTHOR: Glosmann M (Reprint); Zhang H; Robbins J T; Farhangfar F; Hashimoto K; Shibusawa N; Wondisford F E; Applebury M L
AUTHOR ADDRESS: Harvard Univ, Sch Med, Howe Lab Ophthalmol, Boston, MA 02115 USA**USA
JOURNAL: IOVS 45 (Suppl. 2): pU629 APR 2004 2004
CONFERENCE/MEETING: Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology Ft Lauderdale, FL, USA April 24 -29, 2004; 20040424
SPONSOR: Assoc Res Vis & Ophthalmol
ISSN: 0146-0404
DOCUMENT TYPE: Meeting; Meeting Poster
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Purpose: Deletion of thyroid hormone receptor (%TR%) beta %2% perturbs mouse cone opsin spatial patterning by derepressing S opsin dorsally and completely abolishing M opsin expression. We sought to map the expression of TRs in the mouse retina and to determine the molecular mechanism by which TRs regulate cone opsin expression. Methods: RT-PCR and in situ hybridization were used to monitor the spatiotemporal expression of %TR% isoforms %alpha%, beta 1, and beta %2% in wildtype (WT) mouse retinas from embryonic day 15 to postnatal day 60. Cone opsin distribution was evaluated with opsin specific antibodies in WT, %TR% beta %2%(-/-), %TR% beta(GS/GS) (incapable of DNA-binding), and %TR% beta(%Delta% 337T) (incapable of ligand-T3-binding) mice. Results: In the WT mouse retina, %TR% %alpha%, beta 1, and beta %2% are differentially expressed throughout all developmental stages examined. %TR% beta 1 and %TR% beta %2% are localized exclusively to cone photoreceptors. Their mRNA levels diminish from the dorsal to ventral retina. %TR% beta %2% (-/-), %TR% beta(GS/GS) and %TR% beta(%Delta% 337T) mice show no expression of M opsin throughout their retina. In these transgenics, S opsin is fully expressed in the dorsal retina in contrast to a gradient of expression in the WT mouse. Conclusions: The spatiotemporal characteristics of %TR% beta %2% expression are consistent with the control of dorsoventral gradients in S opsin expression. %TR% beta %2% at higher levels functions, directly or indirectly, as a repressor of S opsin. %TR% beta %2% servesas an activator of M opsin. The knock-out and knock-in models indicate that the function of %TR% beta %2% as a repressor for S opsin or activator of M opsin expression depends on both DNA and ligand binding

2/7/48 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18452619 BIOSIS NO.: 200510147119
Athyroid Pax8(-/-) mice cannot be rescued by the inactivation of thyroid hormone receptor %alpha% 1
AUTHOR: Mittag Jens; Friedrichsen Soenke; Heuer Heike; Polsfuss Silke; Visser Theo J; Bauer Karl (Reprint)
AUTHOR ADDRESS: Max Planck Inst Expt Endokrinol, Feodor Lynen Str 7, D-30625 Hannover, Germany**Germany
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RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The Pax8(-/-) mouse provides an ideal animal model to study the consequences of congenital hypothyroidism, because its only known defect is the absence of thyroid follicular cells. Pax8(-/-) mice are, therefore, completely athyroid in postnatal life and die around weaning unless they are substituted with thyroid hormones. As reported recently, Pax8(-/-) mice can also be rescued and survive to adulthood by the additional elimination of the entire thyroid hormone receptor %alpha% (%TR% %alpha%) gene, yielding Pax8(-/-) %TR% %alpha%(o/o) double-knockout animals. This observation has led to the hypothesis that unliganded %TR% %alpha% 1 might be responsible for the lethal phenotype observed in Pax8(-/-) animals. In this study we report the generation of Pax8(-/-) %TR% %alpha% 1(-/-) double-knockout mice that still express the non-T-3-binding %TR% isoforms %alpha% %2% and %Delta% %alpha% %2%. These animals closely resemble the phenotype of Pax8(-/-) mice, including growth retardation and a completely distorted appearance of the pituitary with thyrotroph hyperplasia and hypertrophy, extremely high TSH mRNA levels, reduced GH mRNA expression, and the almost complete absence of lactotrophs. Like Pax8(-/-) mice, Pax8(-/-) %TR% %alpha% 1(-/-) compound mutants die around weaning unless they are substituted with thyroid hormones. These findings do not support the previous interpretation that the short life span of Pax8(-/-) mice is due to the negative effects of the %TR% %alpha% 1 aporeceptor, but, rather, suggest a more complex mechanism involving %TR% %alpha% %2% and an unliganded %TR% isoform.

2/7/49 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

18381861 BIOSIS NO.: 200510076361
Prostaglandin D2 and J(%2%) induce apoptosis in human leukemia cells via activation of the caspase 3 cascade and production of reactive oxygen species
AUTHOR: Chen Yen-Chou (Reprint); Shen Shing-Chuan; Tsai Shu-Huei
AUTHOR ADDRESS: Taipei Med Univ, Grad Inst Pharmacol, 250 Wu Hsing St, Taipei 110, Taiwan**Taiwan
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JOURNAL: Biochimica et Biophysica Acta 1743 (3): p291-304 APR 15 05 2005
ISSN: 0167-4889
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The presence of prostaglandins (PGs) has been demonstrated in the processes of carcinogeriesis and inflammation. In the present study, we found that 12-o-tetradecanoylphorbol 13-acetate (TPA) induced cyclooxygenase %2% (COX-%2%), but not COX-1, protein expression in HL-60 cells, and the addition of arachidonic acid (AA) in the presence or absence of TPA significantly reduced the viability of HL-60 cells, an effect that was blocked by adding the COX inhibitors, NS398 and aspirin. The AA metabolites, PGD(%2%) and PGJ(%2%), but not PGE(%2%) or PGF(%2% %alpha%), reduced the viability of the human HL60 and Jurkat leukemia cells according to the MTT assay and LDH release assay. Apoptotic characteristics including DNA fragmentation, apoptotic bodies, and hypodiploid cells were observed in PGD(%2%)(-) and PGJ(%2%)-treated leukemia cells. A dose- and time-dependent induction of caspase 3 protein procession, and PARP and D4-GDI protein cleavage with activation of

caspase 3, but not caspase I, enzyme activity was detected in HL-60 cells treated with PGD2 or PGJ2. Additionally, DNA ladders induced by PGD2 and PGJ2 were significantly inhibited by the caspase 3 peptidyl inhibitor, Ac-DEVD-FMK, but not by the caspase I peptidyl inhibitor, Ac-YVAD-FMK, in accordance with the blocking of caspase 3, PARP, and D4-GDI protein procession. An increase in intracellular peroxide levels by PGD(%2%) and PGJ(%2%) was identified by the DCHF-DA assay, and anti-oxidant N-acetyl cysteine (NAC), mannitol (MAN), and tiron significantly inhibited cell death induced by PGD(%2%) and PGJ(%2%) by reducing reactive oxygen species (ROS) production. The PGJ(%2%) metabolites, 15-deoxy-%Delta% (12,14)-PGJ(%2%) and %Delta%(12,14)-PGJ(%2%) exhibited effective apoptosis-inducing activity in HL-60 cells through ROS production via activation of the caspase 3 cascade. The proliferator-activated receptor-gamma (PPAR-gamma) agonists, rosiglitazone (RO), troglitazone (%TR%), and ciglitazone (CI), induced apoptosis in cells which was blocked by the addition of the PPAR-gamma antagonists, GW9662 and BADGE, via blocking of caspase 3 and PARP cleavage. However, neither GW9662 nor BADGE showed any protective effect on PGD(%2%)- and PGJ(%2%)-induced apoptosis. A differential apoptotic effect of PGs through ROS production, followed by activation of the caspase 3 cascade, was demonstrated. (c) 2004 Elsevier B.V. All rights reserved.

2/7/50 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17900754 BIOSIS NO.: 200400271511
Non-nuclear effects of thyroid hormone
AUTHOR: Leonard Jack L (Reprint); Farwell Alan P
AUTHOR ADDRESS: Shrewsbury, MA, USA**USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1282 (1): May 4, 2004 2004
MEDIUM: e-file
ISSN: 0098-1133 _(ISSN print)
DOCUMENT TYPE: Patent
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Truncated thyroid hormone receptors DELTATRalpha1 and DELTATRalpha2 have been discovered to play a role in actin-based endocytosis, e.g., in the nervous system. The invention relates to methods of discovering ligands effective in modulating endocytosis and transgenic mice with altered expression of DELTATRalpha1 and DELTATRalpha2. The invention is useful for the discovery and testing of compounds for treating disorders of the nervous system such as depression.

2/7/51 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

17701594 BIOSIS NO.: 200400082351
Zonal expression of the thyroid hormone receptor %alpha% isoforms in rodent liver.
AUTHOR: Zandieh-Doulabi B; Dop E; Schneiders M; Schiphorst M P-T; Mansen A; Vennstrom B; Dijkstra C D; Bakker O (Reprint); Wiersinga W M
AUTHOR ADDRESS: Department of Endocrinology and Metabolism, Academic Medical Centre, Meibergdreef 9, FS-171, 1105 AT, Amsterdam, Netherlands** Netherlands
AUTHOR E-MAIL ADDRESS: o.bakker@amc.uva.nl
JOURNAL: Journal of Endocrinology 179 (3): p379-385 December 2003 2003
MEDIUM: print
ISSN: 0022-0795 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Many metabolic processes occur simultaneously in the liver in different locations along the porto-central axis of the liver units. These processes are often regulated by hormones, one of which is thyroid hormone which for its action depends on the presence of the different isoforms of the thyroid hormone receptor (%TR%). These are encoded by two genes: c-erbA-%alpha% encoding TRalpha1 and TRalpha2 and their respective %DELTA% isoforms, and c-erbA-beta which encodes TRbeta1, TRbeta2 and TRbeta3. We recently found a zonal (pericentral) expression of and a diurnal variation in the TRbeta1 isoform in rat liver. We were therefore also interested to see whether TRalpha1 and TRalpha2 expression showed similar characteristics. For this reason we raised both polyclonal and monoclonal antibodies against TRalpha1 and TRalpha2 isoforms and characterised these. Antibody specificity was tested using Western blots and immunohistochemistry in liver of %TR% isoform-specific knockout animals. Using these antibodies we found that the TRalpha1 and TRalpha2 isoforms are zonally expressed around the central vein in rat liver. The experiments show that the portal to central gradient of TRalpha1 is broader than that of TRbeta1. Moreover, the expression of the TRalpha2 protein showed a diurnal variation with a peak in the afternoon when the animals are least active whereas no such variation was found for the TRalpha1 protein. From our data it appears that both the TRalpha1 and TRalpha2 isoforms show a zonal distribution in liver. This finding, together with the observed diurnal rhythm, has major implications for interpreting and timing experiments concerning the %TR% and its downstream actions in liver.

2/7/52 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

14055290 BIOSIS NO.: 199799689350
Identification of transcripts initiated from an internal promoter in the c-erbA-%alpha% locus that encode inhibitors of retinoic acid receptor-%alpha% and triiodothyronine receptor activities
AUTHOR: Chassande Olivier (Reprint); Fraichard Alexandre; Gauthier Karine; Flamant Frederic; Legrand Claude; Savatier Pierre; Laudet Vincent; Samarut Jacquet
AUTHOR ADDRESS: Lab. Biol. Mol. Cell., Ecole Normale Superieure Lyon, UMR 49, Allee d'Italie, 69364 Lyon Cedex 07, France**France
JOURNAL: Molecular Endocrinology 11 (9): p1278-1290 1997 1997
ISSN: 0888-8809
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The thyroid hormone receptor-coding locus, c-erbA-%alpha%, generates several mRNAs originating from a single primary transcript that undergoes alternative splicing. We have identified for the first time two new transcripts, called %TR%-%DELTA%-%alpha%-1 and %TR%-%DELTA%-%alpha%-%2% (mRNA for isoform %alpha%-1 and %alpha%-%2% of the T, receptor (%TR%), respectively), whose transcription is initiated from an internal promoter located within intron 7 of the c-erbAa gene. These two new transcripts exhibit tissue-specific patterns of expression in the mouse. These two patterns are in sharp contrast with the expression patterns of the full-length transcripts generated from the c-erbA-%alpha% locus. %TR% -%DELTA%-%alpha%-1 and %TR%-%DELTA%-%alpha%-%2% mRNAs encode N-terminally truncated isoforms of T3R-%alpha%-1 and T3R-%alpha%-%2%, respectively. The protein product of %TR%-%DELTA%-%alpha%-1 antagonizes the transcriptional activation elicited by T, and retinoic acid. This protein inhibits the ligand-induced activating functions of T3R-%alpha%-1 and 9-cis-retinoic acid receptor-%alpha% but does not affect the retinoic acid-dependent activating function of retinoic acid receptor-%alpha%. We predict that these truncated proteins may work as down-regulators of transcriptional activity of nuclear hormone receptors in vivo.

2/7/53 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13784300 BIOSIS NO.: 199799418360
Substituent effects on the enantioselective retention of anti-HIV 5-aryl-%DELTA%-%2%-1,%2%,4-oxidiazolines on R,R-DACH-DNB chiral stationary phase
AUTHOR: Altomare Cosimo; Cellamare Saverio; Carotti Angelo (Reprint); Barreca Maria Letizia; Chimirri Alba; Monforte Anna-Maria; Gasparrini Francesco; Villani Claudio; Cirilli Maurizio; Mazza Fernando
AUTHOR ADDRESS: Dip. Farm.-Chim., Univ. Bari, Via E. Orabona 4, 70125 Bari, Italy**Italy
JOURNAL: Chirality 8 (8): p556-566 1996 1996
ISSN: 0899-0042
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A series of racemic 3-phenyl-4-(1-adamantyl)-5-X-phenyl-%DELTA%-%2%-1,%2%,4-oxadiazolines (PAdOx) were directly resolved by HPLC using a Pirkle-type stationary phase containing N,N'-(3,5-dinitrobenzoyl)-1(R), %2%(R)-diaminocyclohexane as chiral selector. The more retained enantiomers have S configuration, as demonstrated by X-ray crystallography and circular dichroism measurements. The influence of aromatic ring substituents on enantioselective retention was quantitatively assessed by traditional linear free energy-related (LFER) equations and comparative molecular field analysis (CoMFA). In good agreement with previous findings, the results from this study indicate that the increase in retention (k') is favoured mainly by the %Tr% -basicity and the hydrophilicity of solute, whereas enantioselectivity (%alpha%) can be satisfactorily modeled by electronic and bulk parameters or CoMFA descriptors. The LFER equations and CoMFA models gave helpful insights into chiral recognition mechanisms.

2/7/54 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13684339 BIOSIS NO.: 199799318399
Two receptor interaction domains in the corepressor, N-CoR/RIP13, are required for an efficient interaction with Rev-erbA-%alpha% and RVR: Physical association is dependent on the E region of the orphan receptors
AUTHOR: Downes Michael; Burke Les J; Bailey Peter J; Muscat George E O (Reprint)
AUTHOR ADDRESS: Univ. Queensland, Centre Molecular Cellular Biol., Ritchie Research Lab., B402A, St. Lucia, 4072 QLD, Australia**Australia
JOURNAL: Nucleic Acids Research 24 (22): p4379-4386 1996 1996
ISSN: 0305-1048
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Rev-erbA-%alpha% and RVR/Rev-erb-beta/BD73 are orphan steroid receptors that have no known ligands in the 'classical sense'. These 'orphans' do not activate transcription, but function as dominant transcriptional silencers. The thyroid hormone receptor (%TR%) and the retinoic acid receptor (RAR) act as transcriptional silencers by binding corepressors (e.g. N-CoR/RIP13 and SMRT/TRAC-%2%) in the absence of ligands. The molecular basis of repression by orphan receptors, however, remains obscure, and it is unclear whether these corepressors mediate transcriptional silencing by Rev-erbA-%alpha% and RVR. Recently, two new variants of N-CoR have been described, RIP13a and RIP13-%DELTA%-1. The characterization of these splice variants has identified a second receptor interaction domain (ID-II), in addition to the previously characterized interaction domain (ID-I). This investigation utilized the mammalian two hybrid system and transfection analysis to demonstrate that Rev-erbA-%alpha% and RVR will not efficiently interact with either ID-I or ID-II separately from RIP13a or RIP13-%DELTA%-1. However, they interact efficiently with a domain composed of ID-I and ID-II from RIP13a. Interestingly, the interaction of Rev-erbA-%alpha% and RVR is strongest with ID-I and ID-II from RIP13-%DELTA%-1. Detailed deletion analysis of the orphan receptor interaction with RIP13/N-CoR rigorously demonstrated that the physical association was critically dependent on an intact E region of Rev-erbA-%alpha% and RVR. Over-expression of the corepressor interaction domains (i.e. dominant negative forms of N-CoR/RIP13) could alleviate orphan receptor-mediated repression of trans-activation by GALVP16. This demonstrated that these regions could function as anti-repressors. In conclusion, these data from two independent approaches demonstrate that repression by Rev-erbA-%alpha% and RVR is mediated by an interaction of ID-I and ID-II of N-CoR, RIP13a and %DELTA%-1 with the putative ligand binding domain of the orphan receptors.

2/7/55 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12765853 BIOSIS NO.: 199598233686
The Effects of Hydrophilic to Hydrophobic Surface Mutations on the Denatured State of Iso-1-cytochrome c: Investigation of Aliphatic Residues
AUTHOR: Herrmann Lynn; Bowler Bruce E (Reprint); Dong Aichun; Caughey Winslow S
AUTHOR ADDRESS: Dep. Chem., Univ. Denver, Denver, CO 80208, USA**USA
JOURNAL: Biochemistry 34 (9): p3040-3047 1995 1995
ISSN: 0006-2960
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A series of hydrophilic to hydrophobic surface mutations were prepared at the highly solvent-exposed lysine 73 of iso-1-cytochrome c to assess the ability of such mutants to affect the energetics of the denatured state. In this report, the aliphatic hydrophobics (leucine, isoleucine, valine, alanine, glycine) were studied. The thermodynamic stability of each of these mutants was determined by guanidine hydrochloride denaturation. Both the free energy of unfolding in the absence of denaturant, %DELTA%-G degree u-H!%2%-O, and the slope, m, of a plot of the free energy of unfolding, %DELTA%-G degree u, versus (guanidine hydrochloride) show significant negative correlations with the 1-octanol to water transfer free energy, %DELTA%-G-%tr%, of the amino acid side chain at position 73. A negative correlation with hydrophobicity is consistent with these mutants leading to more extensive hydrophobic clustering in the denatured state, consistent with the predictions of heteropolymer theory for compact denatured states; an effect operating on the native state energetics should produce a positive correlation of %DELTA%-G degree u-H!%2%-O with hydrophobicity. Infrared amide I spectroscopy indicated native state structural perturbations for the glycine 73 and isoleucine 73 mutants. A moderate correlation of %DELTA%-G degree u-H!%2%-O was also found with %alpha%-helix propensity, suggesting that both hydrophobic effects acting on the denatured state and %alpha%-helix propensity are affecting the %DELTA%-G degree u-H!%2%-O values for these mutants.

2/7/56 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06918347 BIOSIS NO.: 198376009782
INDIVIDUAL FEATURES OF ORGANIZATION OF THE HUMAN ENDOCRINE SYSTEM
AUTHOR: GOROZHANIN V S (Reprint)
AUTHOR ADDRESS: KUSTANAI PEDAGOG INST, KUSTANAI, USSR**USSR
JOURNAL: Problemy Endokria 28 (4): p33-39 1982
ISSN: 0375-9660
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: RUSSIAN

ABSTRACT: Individual features of the endocrine system were studied in 26 healthy men, divided into %2% groups, according to the characteristics of EEG; electrocutaneous thresholds and the time response (%TR%) upon sound

signals of 40-120 db. The subjects of the 1st group were characterized by the high energy of EEG .%DELTA%.- and .theta.-rhythms, low energy of . %alpha%.-rhythm, low thresholds and TR40:TR120 ratio. The patients of the 2nd group had the opposite parameters. In both groups the blood plasma and urine catecholamine content, ACTH, TSH, 11-hydroxycorticosteroids, cortisol, aldosterone, thyroxine, triiodothyronine, testosterone and plasma insulin were determined by spectrofluorometry and radioimmunoassay. The elevation of the cortisol level after ACTH injection and of the TSH concentration following thyroliberin administration were investigated. Two polar variants of the endocrine system organization were revealed. The patients of the 1st group had an elevated activity of the sympathico-adrenal, hypophyseal-adrenal systems and insular apparatus, comparatively lowered activity of the hypophyseal-thyroid system and gonads. The subjects of the 2nd group demonstrated an opposite character of the endocrine system. It is suggested that the individual peculiarities of the human endocrine system promote the development of obesity, Itsenko-Cushing's disease, hypertension, thyrotoxicosis, acromegaly and bronchial asthma.

2/7/57 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05362208 BIOSIS NO.: 197865023195
BIOCHEMICAL EFFECTS OF THE SYSTEMIC FUNGICIDES FENARIMOL AND NUARIMOL IN USTILAGO-AVENAE
AUTHOR: BUCHENAUER H (Reprint)
AUTHOR ADDRESS: INST PHYTOMED, UNIV HOHENHEIM, POSTFACH 106, D-7000 STUTTGART 70, W GER**WEST GERMANY
JOURNAL: Zeitschrift fuer Pflanzenkrankheiten und Pflanzenschutz 84 (5): p 286-299 1977
ISSN: 0340-8159
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: During the first doubling period (4 h) the systemic fungicides fenarimol (EL-222; 3 .mu.g/ml nutrient solution) and nuarimol (EL-228; %2% .mu.g/ml) hardly affected dry wt increase and sporidia multiplication of U. avenae. With progressive incubation time (8 h) further multiplication of sporidia was more severely inhibited by both chemicals than dry wt increase. Fenarimol and nuarimol interfered in the normal division processes of sporidia, resulting in formation of clusters of interconnected cells. At a concentration range of %2%.5-25 .mu.g/ml the chemicals did not inhibit glucose oxidation during a 3 h period. Fenarimol (3 .mu.g/ml) and nuarimol (%2% .mu.g/ml) did not appreciably reduce DNA, RNA and protein contents in sporidia of U. avenae as compared to controls. Short term incorporation (%2% h) of 14C-acetate into various lipid fractions indicated that fenarimol and nuarimol seriously inhibited ergosterol biosynthesis in sporidia; concomitantly, radioactivity of sterols migrating to the region of C-4-methyl- and 4,4-dimethyl sterols was markedly increased. While radioactivity of sterol ester fraction was also reduced in treated sporidia, both compounds had only a minute effect on triglycerides, diglycerides and phospholipids. The pronounced inhibition of ergosterol biosynthesis and the accompanying accumulation of ergosterol precursors was also demonstrated by gas chromatographic analysis and TLC. Based on relative retention times (%tR%), the ergosterol precursors presumably represent 24-methylenedihydrolanosterol (%tR% 1,84), obtusifoliol (%tR% 1,47) 14-.%alpha%.-methlyl-.%DELTA% .8,24-ergostadienol (%tR% 1,29) and .%DELTA%.5,7-ergostadienol (%tR% 1,39). Fenarimol and nuarimol probably have an identical mode of action in sporidia of U. avenae as triarimol in U. maydis and Aspergillus fumigatus.

2/7/58 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15993379 Genuine Article#: 127UU Number of References: 30
Title: Volumetric, viscometric and refractive index behaviors of %alpha% -amino acids in aqueous caffeine solution at varying temperatures
Author(s): Ali AW (REPRINT) ; Sabir S; Tariq M
Corporate Source: Jamia Millia Islamia Cent Univ,Dept Chem,New Delhi 110025//India/ (REPRINT); Jamia Millia Islamia Cent Univ,Dept Chem,New Delhi 110025//India/
Journal: ACTA PHYSICO-CHIMICA SINICA, 2007, V23, N1 (JAN), P79-83
ISSN: 1000-6818 Publication date: 20070100
Publisher: PEKING UNIV PRESS, PEKING UNIV, CHEMISTRY BUILDING, BEIJING 100871, PEOPLES R CHINA
Language: English Document Type: ARTICLE
Abstract: Measurements of density(rho), viscosity(eta), and refractive index(n), were carried out on %alpha%-amino acids, DL-alanine (Ala), D-phenylalanine (Phe), and DL-threonine (Thr) (0.01-0.05 mol.L-1) in 0.05 mol.L-1 aqueous caffeine solution at 298.15, 303.15, 308.15, and 313.15 K. These measurements have been carried out to evaluate some important parameters, viz., apparent molar volume (phi(v)), partial molar volume (phi(0)(v)), transfer volume (phi(0)(upsilon)(%tr%)), viscosity A and B coefficients of Jones-Dole equation, free energies of activation per mole of solvent (%Delta% mu(0 not equal)(1)) and solute (%Delta% mu(0 not equal)(%2%)), enthalpies (%Delta% H*) and entropies (%Delta% S*) of activation of viscous flow, variation of B with temperature (partial derivative B/partial derivative T)(p), and molar refractive index (R-D). These parameters have been interpreted in terms of solute-solute and solute-solvent interactions and structure making/breaking ability of solutes in the given solution.

2/7/59 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15981737 Genuine Article#: 124GJ Number of References: 38
Title: Thermodynamic studies on the interactions of diglycine with magnesium chloride in aqueous medium at different temperatures
Author(s): Lark BS; Patyar P; Banipal TS (REPRINT)
Corporate Source: Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/ (REPRINT); Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/; Guru Nanak Dev Univ,Dept Chem,Amritsar 143005/Punjab/India/
Journal: JOURNAL OF CHEMICAL THERMODYNAMICS, 2006, V38, N12 (DEC), P 1592-1605
ISSN: 0021-9614 Publication date: 20061200
Publisher: ACADEMIC PRESS LTD ELSEVIER SCIENCE LTD, 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Apparent molar heat capacities (C-P2,C-phi), apparent molar volumes (V-%2%,V-phi), and viscosities (eta) of diglycine in water and in aqueous magnesium chloride (MgCl2) solutions of molality m(S) approximate to (0.05 to 0.70) mol center dot kg(-1) over the temperature range T = (288.15 to 328.15) K have been determined using high sensitivity micro-differential scanning calorimeter, vibrating-tube digital density meter, and automatic viscosity measuring unit (AVS 350), respectively. The data have been used to calculate the partial molar heat capacities (C-P2(infinity)) and partial molar volumes (V-%2%(infinity)) at infinite dilution. The viscosity B-coefficients have also been obtained from viscosity data using Jones-Dole equation. The C-P2(infinity) and V-%2%(infinity) values of diglycine in aqueous MgCl2 solutions are higher than those in water and thus exhibit positive transfer functions (%Delta% C-%tr%(P2)infinity and %Delta% V-%tr%(%2%)infinity), which are indicative of strong interactions between diglycine and MgCl2: Corresponding viscosity B-coefficients of transfer are also generally positive. The transfer functions decrease with increase in temperature and increase with the concentration of MgCl2. The free energies, enthalpies and entropies of activation for viscous flow of diglycine in aqueous MgCl2 solutions have been obtained by using the Feakins transition-state theory. Partial molar expansibilities (partial derivative V-%2% (infinity)/partial derivative T-%2%), and (partial derivative V-%2%(%2%

)infinity/partial derivative T-%2%)(p) at infinite dilution along with their temperature dependence, the interaction coefficients from the volume, heat capacity, and viscosity B-coefficients have been used to divulge the various kinds of plausible interactions between solute (diglycine) and cosolute (MgCl2) in solutions.

2/7/60 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15842264 Genuine Article#: 112DA Number of References: 41
Title: Volumetric, viscometric and refractive index behavior of some %alpha%-amino acids in aqueous tetrapropylammonium bromide at different temperatures
Author(s): Ali A (REPRINT) ; Shahjahan
Corporate Source: Jamia Millia Islamia,Dept Chem,New Delhi 110025//India/ (REPRINT); Jamia Millia Islamia,Dept Chem,New Delhi 110025//India/
Journal: JOURNAL OF THE IRANIAN CHEMICAL SOCIETY, 2006, V3, N4 (DEC), P 340-350
ISSN: 1735-207X Publication date: 20061200
Publisher: IRANIAN CHEMICAL SOCIETY, NO. 7, MARAGHEH STREET, OSTAD NEJATOLLAHI AVENUE, PO BOX 15875-1169, TEHRAN, 00000, IRAN
Language: English Document Type: ARTICLE
Abstract: Densities, rho, viscosities, eta, and refractive indices, n(D), of glycine (Gly), DL-alanine (Ala), DL-valine (Val) (0.05, 0.10, 0.15, 0.20, 0.25 mol kg(-1)), and L-leucine (Leu) (0.02, 0.05, 0.10 mol kg(-1)) in water and in 0.20 mol kg(-1) aqueous tetrapropylammonium bromide (TPAB) have been measured at 298.15, 303.15, 308.15, and 313.15 K. The density data have been utilized to calculate apparent molar volumes, phi(v), partial molar volumes at infinite dilution, phi(o)(v), and partial molar volumes of transfer, phi(o)(v(%tr%)) of amino acids. The viscosity data have been analyzed by means of Jones-Dole equation to obtain Falkenhagen coefficient, A, and Jones-Dole coefficient, B, free energy of activation of viscous flow per mole of solvent, %Delta% mu(degrees*)(1), and solute, %Delta% mu(degrees*)(%2%), and enthalpy, %Delta% H*, and entropy of activation, %Delta% S*, of viscous flow. The refractive index data have been used to calculate molar refractivity, R-D, of amino acids in aqueous tetrapropylammonium bromide solutions. It has been observed that phi(v)degrees, B-coefficient and %Delta% mu(degrees*)(%2%) vary linearly with increasing number of carbon atoms in the alkyl chain of amino acids, and they were split to get contributions from the zwitterionic end groups (NH3+, COO-) and methylene group (CH2) of the amino acids. The behavior of these parameters has been used to investigate the solute-solute and solute-solvent interactions as well as the effect of tetrapropylammonium cation (C3H7)(4)N+ on these interactions.

2/7/61 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15705451 Genuine Article#: 097NP Number of References: 34
Title: Partial molar volumes of some of %alpha%-amino acids in binary aqueous solutions of MgSO4 center dot 7H(%2%)O at 298.15 K
Author(s): Mallick BC; Kishore N (REPRINT)
Corporate Source: Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/ (REPRINT); Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/
Journal: JOURNAL OF SOLUTION CHEMISTRY, 2006, V35, N10 (OCT), P1441-1451
ISSN: 0095-9782 Publication date: 20061000
Publisher: SPRINGER/PLENUM PUBLISHERS, 233 SPRING ST, NEW YORK, NY 10013 USA
Language: English Document Type: ARTICLE
Abstract: The apparent molar volume, V-phi,%2%(o), of glycine, alanine, %alpha%-amino-n-butyric acid, valine and leucine have been determined in aqueous solutions of 0.25, 0.5 and 1.0 mol . dm(-3) magnesium sulfate, and the partial specific volume from density measurements at 298.15 K. These data have been used to calculate the infinite dilution apparent molar volume, V-%2%,m(o), group contribution of amino acids and partialmolar volume of transfer, %Delta%(%tr%) V-%2%,m(o), from water to aqueous magnesium sulfate solutions. The linear correlation of V-%2%,m(o) for a homologous series of amino acids has been utilized to calculate the contributions of charged end groups (NH3+, COO-), CH2-groups and other alkyl chains of amino acids to V-%2%,m(o). The results for %Delta%(%tr%) V-%2%,m(o) of amino acids from water to aqueous magnesium sulfate solutions have been interpreted in terms of ion-ion, ion-polar, hydrophilic-hydrophilic and hydrophobic-hydrophobic group interactions. The values of the standard partial molar volume of transfer for the amino acids with different hydrophobic contents, from water to aqueous MgSO4 are in general positive, indicating the predominance of the interactions of zwitterionic/hydrophilic groups of amino acids with ions of the salt. The hydration number decreases with increasing concentration of salt. The number of water molecules hydrated to amino acids decreases, further strengthening the predominance of ionic/hydrophilic interactions in this system.

2/7/62 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15373451 Genuine Article#: 065TD Number of References: 14
Title: Low-temperature heat capacities and thermochemistry of the complex of praseodymium perchlorate with L-%alpha%-glutamic acid: [Pr-%2%(Glu)(%2%)(ClO4)(H2O)(7)](ClO4)(3)center dot 4H(%2%)O
Author(s): Di YY (REPRINT) ; Tan ZC; Li YS
Corporate Source: Liaocheng Univ,Coll Chem & Chem Engn,Liaocheng 252059//Peoples R China/ (REPRINT); Liaocheng Univ,Coll Chem & Chem Engn,Liaocheng 252059//Peoples R China/; Chinese Acad Sci,Dalian Inst Chem Phys, Thermochem Lab,Dalian 116023//Peoples R China/; Dalian Jiaotong Univ,Coll Environm Sci & Engn,Dalian 116028//Peoples R China/(tzc@dicp.ac.cn)
Journal: ACTA CHIMICA SINICA, 2006, V64, N13 (JUL 14), P1393-1401
ISSN: 0567-7351 Publication date: 20060714
Publisher: SCIENCE CHINA PRESS, 16 DONGHUANGCHENGGEN NORTH ST, BEIJING 100717, PEOPLES R CHINA
Language: Chinese Document Type: ARTICLE
Abstract: A complex of praseodymium perchlorate with L-%alpha%-glutamic acid, [Pr-%2%(Glu)(%2%)(ClO4)(4)(H2O)(7)](ClO4)(3)center dot 4H(%2%)O, was synthesized. By chemical analysis, elemental analysis, FTIR, TG/DTG, and comparison with relevant literatures, its chemical composition and structure were established. The purity was found to be >99.0%, without melting point. Low-temperature heat capacities were measured by a,precision automated adiabatic calorimeter over the temperature range from 78 to 370 K. An obvious endothermic peak in the heat capacity curve was observed over the temperature region of 285 similar to 306 K, which was ascribed to a solid-to-solid phase transition according to the results of TG/DTG analysis and melting point measurement. The temperature T-%tr%, the enthalpy %Delta% H-%tr% (m) and the entropy %Delta% S-%tr%(m) of the phase transition for the compound were determined to be: (297.158 +/- 0.280) K, (12.338 +/- 0.016) kJ.mol(-1) and (41.520 +/- 0.156) J.K-1.mol(-1), respectively through three repeated heat capacity measurements in the phase transition region with different amounts of the sample. Two polynomial equations of heat capacities as a function of the temperature in the regions of 78 similar to 285 K and 306 similar to 370 K were fitted by the least square method, respectively. Based on the two fitted polynomials, the smoothed heat capacities and thermodynamic functions of the complex relative to the standard reference temperature 273.15 K were calculated with the interval of 5 K. The mechanism about thermal decomposition of the complex was deduced on the basis of the TG/DTG analysis. In accordance with Hess law the standard molar enthalpy of formation for the complex was determined as %Delta% H-f(m)Theta = (-7223.1 +/- %2%.4) kJ.mol(-1), by application of an isoperibol solution-reaction calorimeter and choice of 1 mol.L-1 HCl as calorimetric solvent.

2/7/63 (Item 6 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

15102156 Genuine Article#: 035HR Number of References: 96
Title: Electrofluorescence of MEH-PPV and its oligomers: Evidence for field-induced fluorescence quenching of single chains
Author(s): Smith TM; Hazelton N; Peteanu LA (REPRINT) ; Wildeman J
Corporate Source: Univ Groningen,Dept Polymer Chem,NL-9747 AG Groningen//Netherlands/ (REPRINT); Carnegie Mellon Univ,Dept Chem,Pittsburgh//PA/15213; Univ Groningen,Ctr Mat Sci,NL-9747 AG Groningen//Netherlands/; Univ Groningen,Dept Polymer Chem,NL-9747 AG Groningen//Netherlands/(peteanu@andrew.cmu.edu; j.wildeman@rug.nl)
Journal: JOURNAL OF PHYSICAL CHEMISTRY B, 2006, V110, N15 (APR 20), P 7732-7742
ISSN: 1520-6106 Publication date: 20060420
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA
Language: English Document Type: ARTICLE
Abstract: Electrofluorescence (Stark) spectroscopy has been used to measure the trace of the change in polarizability (%tr% %Delta%(%alpha%) over left right arrow) and the absolute value of the change in dipole moment (vertical bar(%alpha%) over right arrow vertical bar) of the electroluminescent polymer poly [%2%-methoxy,5-(%2% '-ethyl-hexoxy)-1,4-phenylene vinylene] (MEH-PPV) and several model oligomers in solvent glass matrixes. From electrofluorescence, the measured values of %tr% %Delta%(%alpha%) over left right arrow increase from 500 60 angstrom(3) in OPPV-5 to 2000 +/- 200 angstrom(3) in MEH-PPV. The good agreement found between these values and those measured by electroabsorption suggests the electronic properties do not differ strongly between absorption and emission, in contrast to earlier predictions. Evidence of electric-field-induced fluorescence quenching of MEH-PPV in dilute solvent glasses was found. When normalized to the square of the applied electric field, the magnitude of quench is comparable to that reported in the literature for thin films of MEH-PPV. In addition, fluorescence quenching was also observed in the oligomers with a magnitude that increases with increasing chain length. By using the values of %tr% %Delta%(%alpha%) over left right arrow measured by electrofluorescence, a model is developed to qualitatively explain the chain length dependence to the fluorescence quench observed in the oligomers as a function of exciton delocalization along the oligomer backbone. Various explanations for the origin of this quenching behavior and its chain length dependence are considered.

2/7/64 (Item 7 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

14888986 Genuine Article#: 015CQ Number of References: 46
Title: Volumetric, viscometric, and refractive index behaviour of %alpha% -amino acids and their groups' contribution in aqueous D-glucose solution at different temperatures
Author(s): Ali A (REPRINT) ; Hyder S; Sabir S; Chand D; Nain AK
Corporate Source: Jamia Millia Islamia Cent Univ,Dept Chem,New Delhi 110025//India/ (REPRINT); Jamia Millia Islamia Cent Univ,Dept Chem,New Delhi 110025//India/(anwar jmi@yahoo.co.in)
Journal: JOURNAL OF CHEMICAL THERMODYNAMICS, 2006, V38, N2 (FEB), P136-143
ISSN: 0021-9614 Publication date: 20060200
Publisher: ACADEMIC PRESS LTD ELSEVIER SCIENCE LTD, 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Density, rho, viscosity, eta, and refractive index, n(D) measurements have been carried out on %alpha%-amino acids, glycine, DL-alanine, L-serine, and DL-valine (0.1 to 0.5) M in 0.%2% M aqueous D-glucose solution at T = (298.15 303.15, 308.15, and 313.15) K. These measurements have been performed to evaluate some important parameters, viz, apparent molar volume, phi(v). limiting apparent molar volume, phi(o)(v) transfer volume, phi(o)(v)(%tr%), viscosity A and B-coefficients of Jones-Dole equation, variation of B with temperature, dB/dT, free energy of activation per mole of solvent, %Delta% mu(o#)(1), and solute, %Delta% mu(o#)(%2%), respectively, and molar refractive index, R-D. These parameters have been interpreted in terms of solute-solute and solute-solvent interactions and structure making/breaking ability of solutes in the given solution. In addition to this, phi(o)(v), B-coefficient and %Delta% mu(o#)(%2%), have been split into group contributions NH3+, COO-, and CH2 of the amino acids using their linear correlation with number of carbon atoms in the alkyl chain of the amino acids.

2/7/65 (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

14224944 Genuine Article#: 950WT Number of References: 33
Title: Specific heat, magnetic susceptibility, resistivity and thermal expansion of the superconductor ZrB12
Author(s): Lortz R; Wang Y; Abe S; Meingast C; Paderno YB; Filippov V; Junod A (REPRINT)
Corporate Source: Univ Geneva,Dept Condensed Matter Phys,CH-1211 Geneva//Switzerland/ (REPRINT); Univ Geneva,Dept Condensed Matter Phys,CH-1211 Geneva//Switzerland/; Forschungszentrum Karlsruhe,Inst Festkorperphys,D-76021 Karlsruhe//Germany/; Inst Problems Mat Sci NANU,Kiev//Ukraine/(alain.junod@physics.unige.ch)
Journal: PHYSICAL REVIEW B, 2005, V72, N2 (JUL), 024547
ISSN: 1098-0121 Publication date: 20050700
Publisher: AMERICAN PHYSICAL SOC, ONE PHYSICS ELLIPSE, COLLEGE PK, MD 20740-3844 USA
Language: English Document Type: ARTICLE
Abstract: In an attempt to clarify conflicting published data, we report new measurements of specific heat, resistivity, magnetic susceptibility, and thermal expansivity up to room temperature for the 6 K superconductor ZrB12, using well-characterized single crystals with a residual resistivity ratio > 9. The specific heat gives the bulk result %2% %Delta%(0)/k(B)T(c)=3.7 for the superconducting gap ratio, and excludes multiple gaps and d-wave symmetry for the Cooper pairs. The Sommerfeld constant gamma(n)=0.34 mJ K-%2% gat(-1) and the magnetic susceptibility chi=-%2%.1x10(-5) indicate a low density of states at the Fermi level. The Debye temperature theta(D) is in the range 1000-1200 K near zero and room temperature, but decreases by a factor of similar to %2% at similar to 35 K. The specific heat and resistivity curves are inverted to yield approximations of the phonon density of states F(omega) and the spectral electron-phonon scattering function %alpha%(%tr%)(%2%)F(omega), respectively. Both unveil a 15 meV mode, attributed to Zr vibrations in oversized B cages, which gives rise to electron-phonon coupling. The thermal expansivity further shows that this mode is anharmonic, while the vanishingly small discontinuity at T-c establishes that the cell volume is nearly optimal with respect to T-c.

2/7/66 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

14001080 Genuine Article#: 931RV Number of References: 33
Title: Interactions of some amino acids with aqueous tetraethylammonium bromide at 298.15 K: A volumetric approach
Author(s): Banerjee T (REPRINT) ; Kishore N
Corporate Source: Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/ (REPRINT); Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/(nandk@chem.iitb.ac.in)
Journal: JOURNAL OF SOLUTION CHEMISTRY, 2005, V34, N2 (FEB), P137-153
ISSN: 0095-9782 Publication date: 20050200
Publisher: SPRINGER/PLENUM PUBLISHERS, 233 SPRING ST, NEW YORK, NY 10013 USA
Language: English Document Type: ARTICLE
Abstract: The apparent molar volumes, V-phi,V-%2%, of glycine, L-alanine, DL-%alpha%-amino-n-butyric acid, L-valine, and L-leucine have been

determined in aqueous 0.25, 0.75, 1.0, and 1.5 mol-dm(-3) tetraethylammonium bromide (TEAB) solutions by density measurements at 298.15 K. These data have been used to calculate the infinite dilution apparent molar volumes, V(%2%,m)degrees stop, for the amino acids in aqueous tetraethylammonium bromide and the standard partial molar volumes of transfer (%Delta%(%tr%) V(%2%,m)degrees) of the amino acids from water to the aqueous salt solutions. The linear correlation of V(%2%,m)degrees for a homologous series of amino acids has been utilized to calculate the contribution of the charged end groups (NH3+, COO-), CH2 group, and other alkyl chains of the amino acids to V(%2% ,m)degrees. The results of the standard partial molar volumes of transfer from water to aqueous tetraethylammonium bromide have been interpreted in terms of ion-ion, ion-polar, and hydrophobic-hydrophobic group interactions. The volume of transfer data suggest that ion-ion or ion-hydrophilic interactions are predominant in the case of glycine and alanine, and hydrophobic-hydrophobic group interactions are predominant in the case of DL-%alpha%-amino butyric acid, L-valine, and L-leucine.

2/7/67 (Item 10 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

13587261 Genuine Article#: 894BX Number of References: 52
Title: Volumetric properties of amino acids and hen-egg-white lysozyme in aqueous Triton X-100 at 298.15 K
Author(s): Singh SK (REPRINT) ; Kishore N
Corporate Source: Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/ (REPRINT); Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/(nandk@chem.iitb.ac.in)
Journal: JOURNAL OF SOLUTION CHEMISTRY, 2004, V33, N11 (NOV), P1411-1427
ISSN: 0095-9782 Publication date: 20041100
Publisher: PLENUM PUBLISHERS, 233 SPRING ST, NEW YORK, NY 10013 USA
Language: English Document Type: ARTICLE
Abstract: The apparent molar volumes, V-phi,V-%2%, of glycine, alanine, %alpha%-amino-n-butyric acid, valine, leucine, and lysine monohydrochloride have been determined in aqueous solutions of 0.05, 0.1, and 0.4 mol-kg(-1) Triton X-100 (TX-100), and the partial specific volume, v(0), of hen-egg-white lysozyme in 0.4 mol- kg(-1) TX-100 by density measurements at 298.15 K. These data have been used to calculate the infinite dilution apparent molar volumes, V-%2%,m(0), for the amino acids in aqueous TX-100 solutions and the standard partial molar volumes of transfer, %Delta%(%tr%)V(%2%,m)(0), of the amino acids from water to the aqueous surfactant solutions. The linear correlation of V-%2%,m(0) for a homologous series of amino acids has been utilized to calculate the contribution of the charged end groups (NH3+, COO-), CH2 group and other alkyl chains of the amino acids to V-%2%,m(0). The results on %Delta%(%tr%)V(%2%,m)(,)0 of amino acids from water to aqueous TX-100 solutions have been interpreted in terms of ion - ion, ion - polar, hydrophilic - hydrophilic and hydrophobic - hydrophobic group interactions. For all the six amino acids studied, the values of %Delta%(%tr%)V(%2%,m)(0) from water to all the studied concentrations of aqueous TX-100 are small in spite of their different hydrophobic content, indicating an overall balance in interactions of zwitterionic/ hydrophilic groups of amino acids with the hydrophilic groups of TX-100, and of hydrophobic and ionic/hydrophilic groups of the amino acids with hydrophobic groups of TX-100. Comparison of the interactions of the amino acids with nonionic, anionic and cationic surfactants has also been made and discussed. The partial specific volume of transfer of lysozyme from water to aqueous TX-100 solutions also indicates a balance of the hydrophobic and hydrophilic interactions in the protein - nonionic surfactant system.

2/7/68 (Item 11 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

13451689 Genuine Article#: 882EH Number of References: 43
Title: Chronic exercise improves myocardial inotropic reserve capacity through %alpha%(1)-Adrenergic and protein kinase C-dependent effects in senescent rats
Author(s): Korzick DH (REPRINT) ; Hunter JC; McDowell MK; Delp MD; Tickerhoof MA; Carson LD
Corporate Source: Penn State Univ,Noll Physiol Res Ctr,University Pk//PA/16802 (REPRINT); Penn State Univ,Noll Physiol Res Ctr,University Pk//PA/16802; Penn State Univ,Dept Kinesiol,University Pk//PA/16802; Texas A&M Univ,Dept Kinesiol,College Stn//TX/(dhk102@psu.edu)
Journal: JOURNALS OF GERONTOLOGY SERIES A-BIOLOGICAL SCIENCES AND MEDICAL SCIENCES, 2004, V59, N11 (NOV), P1089-1098
ISSN: 1079-5006 Publication date: 20041100
Publisher: GERONTOLOGICAL SOCIETY AMER, 1275 K STREET NW SUITE 350, WASHINGTON, DC 20005-4006 USA
Language: English Document Type: ARTICLE
Abstract: We have previously demonstrated that %alpha%(1)-adrenergic (AR)-mediated contraction is diminished in the senescent rat heart, in part due to alterations in protein kinase C (PKC) signaling. Since chronic exercise training (EX) can exert independent effects on increasing %alpha%(1)-AR contraction in the adult rat heart, we sought to determine whether age-related defects in %alpha%(1)-AR contraction could be reversed by chronic EX. We further hypothesized that improved %alpha%(1)-AR contraction by EX may be PKC dependent. Adult (4 months; Y) and aged (24 months; 0) male F344 rats were treadmill-trained (n = 12-13/group; %TR%) at similar to70% of VO2max for 12 weeks or remained sedentary (YSED, YTR, OSED, OTR). Training status was verified by plantaris citrate synthase activity and left ventricular (LV) contractile responses (dP/dt) to %alpha%(1)-AR stimulation were assessed in Langendorff-perfused hearts using the %alpha%(1)-AR agonist phenylephrine (PE; 10(-5) M) with and without the PKC inhibitor chelerythrine (CE; 10(-6) M). %alpha%(1)-AR stimulation elicited greater increases in LV dP/dt in hearts isolated from OTR (4525.4 +/- 224.1 mmHg/s) versus OSED (3658.9 +/- 291.0 mmHg/s), while CE abolished PE-induced effects (OTR, 4069.%2% +/- 341.%2%) versus (OSED, 3608.9 +/- 321.%2%) (p < .01). Upon western blotting, phosphospecific antibodies directed at PKCepsilon (pSer(729)) revealed greater levels in LV isolated from YTR versus YSED, and EX ameliorated aged-related reductions in OSED (p < .001). Basal PKCepsilon. mRNA levels were also greater in YTR and OTR versus YSED (p < .01). PE-induced increases in phosphor-PKCdelta (pThr(507)) levels observed in OSED were attenuated in OTR (p < .03). Chronic EX was also associated with significant reductions in PKCalpha (pSer(657)) levels following PE in OTR (p < .002). The results indicate that age-related reductions in %alpha% (1)-AR contraction can be partially reversed by EX in the rat heart. These results further suggest that alterations in PKC levels underlie, at least in part, EX-induced improvements in %alpha%(1)-AR contraction.

2/7/69 (Item 12 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

13446297 Genuine Article#: 879FD Number of References: 65
Title: Nontranscriptional modulation of intracellular Ca2+ signaling by ligand stimulated thyroid hormone receptor
Author(s): Saelim N; John LM; Wu J; Park JS; Bai YD; Camacho P; Lechleiter JD (REPRINT)
Corporate Source: Univ Texas,Hlth Sci Ctr, Dept Cell & Struct Biol,7703 Floyd Curl Dr/San Antonio//TX/78229 (REPRINT); Univ Texas,Hlth Sci Ctr, Dept Cell & Struct Biol,San Antonio//TX/78229; Univ Texas,Hlth Sci Ctr, Dept Physiol,San Antonio//TX/78229(lechleiter@uthscsa.edu)
Journal: JOURNAL OF CELL BIOLOGY, 2004, V167, N5 (DEC 6), P915-924
ISSN: 0021-9525 Publication date: 20041206
Publisher: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021 USA
Language: English Document Type: ARTICLE
Abstract: Thyroid hormone 3,5,3'-tri-iodothyronine (T-3) binds and activates thyroid hormone receptors (TRs). Here, we present evidence for a nontranscriptional regulation of Ca2+ signaling by T-3-bound TRs. Treatment of Xenopus thyroid hormone receptor beta subtype A1 (xTR(beta)A1) expressing oocytes with T-3 for 10 min increased inositol

1,4,5-trisphosphate (IP3)-mediated Ca2+ wave periodicity. Coexpression of %TR%(beta)A1 with retinoid X receptor did not enhance regulation. Deletion of the DNA binding domain and the nuclear localization signal of the %TR%(beta)A1 eliminated transcriptional activity but did not affect the ability to regulate Ca2+ signaling. T-3-bound %TR%(beta)A1 regulation of Ca2+ signaling could be inhibited by ruthenium red treatment, suggesting that mitochondrial Ca2+ uptake was required for the mechanism of action. Both xTR(beta)A1 and the homologous shortened form of rat %TR%(%alpha%)1 (rTRDelta/F1) localized to the mitochondria and increased O-%2% consumption, whereas the full-length rat %TR%(%alpha%)1 did neither. Furthermore, only T3-bound xTR(beta)A1 and rTR(%alpha%)%Delta%/F1 affected Ca2+ wave activity. We conclude that T-3-bound mitochondrial targeted TRs acutely modulate IP3-mediated Ca2+ signaling by increasing mitochondrial metabolism independently of transcriptional activity.

2/7/70 (Item 13 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12890555 Genuine Article#: 831MD Number of References: 15
Title: Partial molar adiabatic compressibilities and viscosities of some amino acids in aqueous 1,4-dioxane solutions at 298.15 K
Author(s): Banipal TS (REPRINT) ; Singh G
Corporate Source: Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/ (REPRINT); Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/(tsbanipal@yahoo.com)
Journal: INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, 2004, V43, N6 (JUN), P 1156-1166
ISSN: 0376-4710 Publication date: 20040600
Publisher: NATL INST SCIENCE COMMUNICATION, DR K S KRISHNAN MARG, NEW DELHI 110 012, INDIA
Language: English Document Type: ARTICLE
Abstract: Apparent molar adiabatic compressibilities (K-s,K-%2%,K-phi) and viscosities (eta) of glycine, DL-%alpha%-alanine, L-valine, L-leucine and L-phenylalanine have been determined in %2%.5, 5.0, 10.0, 20.0 and 25.0% aqueous 1,4-dioxane solution at 298.15 K. These data have been used to calculate partial molar adiabatic compressibilities of transfer at infinite dilution (%Delta%(%tr%)K(s,%2%)(o)) and viscosity B-coefficients. Positive %Delta%(%tr%)K(s,%2%)(o) values have been observed (except very small negative value for glycine at %2%.5 %) for the studied amino acids and their magnitude increases with increase in concentration of 1,4-dioxane. B-coefficient values for the studied amino acids in 1,4-dioxane are higher than the corresponding values in water. The activation energy for viscous flow in aqueous 1,4-dioxane solutions has been calculated from B-coefficient and partial molar volume data reported earlier. Hydration numbers, interaction coefficients and side chain contributions have also been calculated and these results have been discussed in terms of solute-cosolute interactions.

2/7/71 (Item 14 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12714719 Genuine Article#: 811YZ Number of References: 12
Title: On upper bounds for positive solutions of semilinear equations
Author(s): Dynkin EB (REPRINT)
Corporate Source: Cornell Univ,Dept Math,White Hall/Ithaca//NY/14853 (REPRINT); Cornell Univ,Dept Math,Ithaca//NY/14853
Journal: JOURNAL OF FUNCTIONAL ANALYSIS, 2004, V210, N1 (MAY 1), P73-100
ISSN: 0022-1236 Publication date: 20040501
Publisher: ACADEMIC PRESS INC ELSEVIER SCIENCE, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495 USA
Language: English Document Type: ARTICLE
Abstract: Suppose that E is a bounded domain of class C-2lambda in R-d and L is a uniformly elliptic operator ill E. The set U of all positive solutions of the equation Lu = psi(u) ill E was investigated by a number of authors for various classes of functions psi. In Dynkin and Kuznetsov (Comm. Pure Appl. Math. 51 (1998) 897) we defined, for every Borel subset Gamma of partial derivativeE, two such solutions u(Gamma) < w(Gamma). We also introduced a class of solutions u(v) in 1-1 correspondence with a certain class N-0 of sigma-finite measures v oil partial derivativeE. With every u epsilon U we associated a pair (Gamma, v) where Gamma is a Borel subset of partial derivativeE and v epsilon N-0. We called this pair the fine boundary trace of it and we denoted in %tr%(u).

Let it u circle plus a stand for the maximal solution dominated by it + u. We say that it belongs to the class E-L.psi if the condition %tr%(u) (Gamma, v) implies that u less than or equal to w(Gamma) circle plus u(v) and we say that it belongs to E-L.psi if the condition %tr% (u) (Gamma, v) implies that u less than or equal to w(Gamma) circle plus u(v).

It was proved ill Dynkin and Kuznetsov (1998) that, under minimal assumptions on L and psi, the class E-L.psi(*) contains all bounded domains. It follows from results of Mselati (These de Doctorat de l'Universite Paris 6, 2002; C.R. Acad. Sci. Paris Ser. I 332 (2002); Mem. Amer. Math. Soc. (2003), to appear), that all E of the class C-4 belong E-Deltapsi to where %Delta% is the Laplacian and psi(u) = u(%2%). [Mselati proved that, in his case, u(Gamma) = w(Gamma) and therefore the ;condition %tr%(u) = (h, v) implies u = u(Gamma)circle plusu(v) = w(Gamma)circle plusu(v)]

By modifying Mselati's arguments, we extend his result to psi(u) = u(%alpha%) with 1 < %alpha% less than or equal to %2% and all bounded domains of class C-2lambda.

We start from proving a general localization theorem: E epsilon E-L.psi under broad assumptions on L, psi if, for every gamma epsilon partial derivativeE there exists a domain E' epsilon E-L.psi such that E' subset of E and partial derivativeE boolean AND partial derivativeE' contains a neighborhood of y in partial derivativeE.

2/7/72 (Item 15 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12585831 Genuine Article#: 801YW Number of References: 75
Title: Thermodynamic study of solvation of some amino acids, diglycine and lysozyme in aqueous and mixed aqueous solutions
Author(s): Banipal TS (REPRINT) ; Singh G
Corporate Source: Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/ (REPRINT); Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/
Journal: THERMOCHIMICA ACTA, 2004, V412, N1-2 (MAR 23), P63-83
ISSN: 0040-6031 Publication date: 20040323
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: Apparent molar adiabatic compressibilities and viscosities of glycine, DL-%alpha%-alanine, DL-%alpha%-amino-n-butyric acid, L-valine, L-leucine and diglycine have been determined in aqueous and mixed aqueous solutions Of m(B) = 1.0, %2%.0, 3.0, 4.0 and 5.0 aqueous n-propanol solutions at 298.15 K. From these data the partial molar adiabatic compressibilities and viscosity B-coefficients have been evaluated to calculate the corresponding transfer functions. The partial molar adiabatic compressibilities of transfer at infinite dilution %Delta%(%tr%)K(%2%,S)degrees for all the studied model compounds are positive and increase with the concentration of n-propanol. Positive and negative B-coefficients of transfer %Delta%(%tr%)B have been observed for the studied amino acids in lower and in higher concentration of n-propanol, respectively. The activation free energy for viscous flow in aqueous and mixed aqueous n-propanol solutions has been calculated from B-coefficient and partial molar volume data. Hydration numbers and interaction coefficients have also

been calculated from these data. These parameters have been discussed in terms of solute-cosolvent interactions. Thermal denaturation of lysozyme has also been studied using UV-visible spectrophotometer in aqueous and in mixed aqueous solutions of n-propanol, 1,%2%-propandiol and glycerol. The thermodynamic parameters accompanying the thermal denaturation have been evaluated. The results have been explained on the basis of competing patterns of interactions of the cosolvents with the native <----> denatured reaction. The preferential interaction parameters have been calculated from these thermodynamic data and by correlating the surface tension data of n-propanol and 1,%2%-propandiol to the surface area of the protein. Some parallelism in the patterns of interactions has been observed for the studied model compounds and protein in the aqueous solutions of these solvents. (C) 2003 Elsevier B.V. All rights reserved.

2/7/73 (Item 16 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12535634 Genuine Article#: 777JX Number of References: 29
Title: Densities and partial molar volumes of some amino acids and diglycine in aqueous n-propanol solutions at 25 degrees C
Author(s): Banipal TS (REPRINT) ; Singh G
Corporate Source: Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/ (REPRINT); Guru Nanak Dev Univ,Dept Appl Chem,Amritsar 143005/Punjab/India/
Journal: JOURNAL OF SOLUTION CHEMISTRY, 2003, V32, N11 (NOV), P997-1015
ISSN: 0095-9782 Publication date: 20031100
Publisher: KLUWER ACADEMIC/PLENUM PUBL, 233 SPRING ST, NEW YORK, NY 10013 USA
Language: English Document Type: ARTICLE
Abstract: Apparent molar volumes, V-phi, of glycine, DL-%alpha%-alanine, DL-%alpha%-amino-n-butyric acid, L-valine, L-leucine, and diglycine in water and in 1.0, %2%.0, 3.0, 4.0, 5.0, and 6.0 m(B) [molality of n-propanol in water (mol-kg(-1))] aqueous solutions of n-propanol have been obtained from densities of their solutions at 25degreesC measured by using a precise vibrating-tube digital densimeter. The calculated partial molar volumes of amino acids and diglycine at infinite dilution, V-%2%,m(0), have been used to obtain the corresponding transfer volumes, %Delta%(%tr%)V(%2%,m)(0), from water to different n-propanol-water mixtures. %Delta%(%tr%)V(%2%,m)(0) values are positive for glycine, DL-%alpha%-alanine, and diglycine (except at lower concentration similar to1.0 m(B)), negative for L-valine, and both positive and negative for the remaining amino acids over the concentration range studied. The side-chain contributions and hydration numbers have been calculated from V-%2%,m(0) data. Interaction coefficients have also been obtained from the McMillan-Mayer approach and the data have been interpreted in terms of various interactions.

2/7/74 (Item 17 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12459106 Genuine Article#: 770ET Number of References: 55
Title: Interactions of some amino acids and glycine peptides with aqueous sodium dodecyl sulfate and cetyltrimethylammonium bromide at T=298.15 K: a volumetric approach
Author(s): Singh SK; Kundu A; Kishore N (REPRINT)
Corporate Source: Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/ (REPRINT); Indian Inst Technol,Dept Chem,Bombay 400076/Maharashtra/India/
Journal: JOURNAL OF CHEMICAL THERMODYNAMICS, 2004, V36, N1 (JAN), P7-16
ISSN: 0021-9614 Publication date: 20040100
Publisher: ACADEMIC PRESS LTD ELSEVIER SCIENCE LTD, 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND
Language: English Document Type: ARTICLE
Abstract: The apparent molar volumes V-phi of glycine, alanine, valine, leucine, and lysine have been determined in aqueous solutions of 0.05, 0.5, 1.0 mol (.) kg(-1) sodium dodecyl sulfate (SDS) and 1.0 mol (.) kg(-1) cetyltrimethylammonium bromide (CTAB) by density measurements at T = 298.15 K. The apparent molar volumes have also been determined for diglycine and triglycine in 1 mol (.) kg(-1) SDS and CTAB solutions. These data have been used to calculate the infinite dilution apparent molar volumes V-%2%(0) for the amino acids and peptides in aqueous SDS and CTAB and the standard partial molar volumes of transfer (%Delta%(%tr%)V(%2%)(0),(m)) of the amino acids and peptides to these aqueous surfactant solutions. The linear correlation of V-%2%(0) for a homologous series of amino acids has been utilized to calculate the contribution of the charged end groups (NH3+, COO-), CH2 group and other alkyl chains of the amino acids to V-%2%(0). The results on the partial molar volumes of transfer from water to aqueous SDS and CTAB have been interpreted in terms of ion-ion, ion-polar and hydrophobic-hydrophobic group interactions. The volume of transfer data suggests that ion-ion or ion-hydrophilic group interactions of the amino acids and peptides are stronger with SDS compared to those with CTAB. Comparison of the hydration numbers of amino acids calculated in the present studies with those in other solvents from literature shows that these numbers are almost the same at 1 mol (.) kg(-1) level of the cosolvent/cosolute. Increasing molality of the cosolvent/cosolute beyond 1 mol (.) kg(-1) lowers the hydration number of the amino acids due to increased interactions with the solvent and reduced electrostriction. (C) 2003 Elsevier Ltd. All rights reserved.

2/7/75 (Item 18 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12033023 Genuine Article#: 725LV Number of References: 67
Title: Preferential interactions of urea with lysozyme and their linkage to protein denaturation
Author(s): Timasheff SN (REPRINT) ; Xie GF
Corporate Source: Brandeis Univ,Dept Biochem,MS 009,415 South St/Waltham//MA/02453 (REPRINT); Brandeis Univ,Dept Biochem,Waltham//MA/02453
Journal: BIOPHYSICAL CHEMISTRY, 2003, V105, N2-3 (SEP), P421-448
ISSN: 0301-4622 Publication date: 20030900
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: The interactions involved in the denaturation of lysozyme in the presence of urea were examined by thermal transition studies and measurements of preferential interactions of urea with the protein at pH 7.0, where it remains native up to 9.3 M urea, and at pH %2%.0, where it undergoes a transition between %2%.5 and 5.0 M urea. The destabilization of lysozyme by urea was found to follow the linear dependence on urea molar concentration, M-u, DeltaG(u)(o)=DeltaG(w)(o)-%2%.1 M-u, over the combined data, where DeltaG(u)(o) and DeltaG(w)(o) are the standard free energy changes of the Nreversible arrowD reaction in urea and water, respectively. Combination with the measured preferential binding gave the result that the increment of preferential binding, deltaGamma(23)=Gamma(23)(D)-Gamma(23)(N), is also linear in M-u. A temperature dependence study of preferential interactions permitted the evaluation of the transfer enthalpy, %Delta%(H) over bar (o)(%2%,%tr%), and entropy, %Delta%(S) over bar (o)(%2%,%tr%) of lysozyme from water into urea in both the native and denatured states. These values were found to be consistent with the enthalpy and entropy of formation of inter urea hydrogen bonds (Schellman, 1955; Kauzmann, 1959), with estimated values of %Delta%(H) over bar (o)(%2%,%tr%)=ca. -%2%.5 kcal mol(-1) and %Delta%(S) over bar (o)(%2%,%tr%)=ca. -7.0 e.u. per site. Analysis of the results led to the conclusion that the stabilization of the denatured form was predominantly by preferential binding to newly exposed peptide groups. Combination with the knowledge that stabilizing osmolytes act by preferential exclusion from peptide groups (Liu and Bolen, 1995) has led to the general conclusion that both the stabilization and destabilization of proteins by co-solvents are controlled predominantly by preferential interactions with peptide groups newly exposed on denaturation. (C) 2003 Elsevier Science B.V. All rights reserved.

2/7/76 (Item 19 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

11923168 Genuine Article#: 711BX Number of References: 53
Title: Stark spectroscopy of the light-harvesting complex II in different oligomerisation states
Author(s): Palacios MA (REPRINT) ; Frese RN; Gradinaru CC; van Stokkum IHM; Premvardhan LL; Horton P; Ruban AV; van Grondelle R; van Amerongen H
Corporate Source: Vrije Univ Amsterdam,Fac Sci, Dept Biophys & Phys Complex Syst, Div Phys & Astron,De Boelelaan 1081/NL-1081 HV Amsterdam//Netherlands/ (REPRINT); Vrije Univ Amsterdam,Fac Sci, Dept Biophys & Phys Complex Syst, Div Phys & Astron,NL-1081 HV Amsterdam//Netherlands/; Leiden Univ,Dept Biophys,NL-2333 CA Leiden//Netherlands/; Univ Sheffield,Robert Hill Inst, Dept Mol Biol & Biotechnol,Sheffield S10 2TN/S Yorkshire/England/; Ecole Normale Super,Dept Biol, UMR 8543,F-75230 Paris 05//France/; Univ Wageningen & Res Ctr,Dept Agrotechnol & Food Sci, Biophys Lab,NL-6703 HA Wageningen//Netherlands/
Journal: BIOCHIMICA ET BIOPHYSICA ACTA-BIOENERGETICS, 2003, V1605, N1-3 (AUG 18), P83-95
ISSN: 0005-2728 Publication date: 20030818
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: The electric field-induced absorption changes (Stark effect) of light-harvesting complex 11 (LHCII) in different oligomerisation states-monomeric, trimeric and aggregated-have been probed at 77 K. All the chlorophyll (Chl) a molecules exhibit electro-optic properties in the Q(y) absorption region characterized by a change in dipole moment \ %Delta%(μ) over right arrow \= 0.6+/-0.06 D/f and polarizability, %Tr%(%Delta%(&%alpha%;) over tilde) similar to 55 +/- 5 %Delta%(3)/f(%2%) upon electronic excitation, which are similar to those of unbound monomeric Chl a, indicating the absence of strong delocaliz.ation of the excitations which would be expected in the presence of strong excitonic interactions. The Stark effect in the Chl b absorption region is significantly bigger with \%Delta%(μ) over right arrow \values of the order of %2%.0 +/- 0.%2% D/f and it is attributed to strong interactions with neoxanthin molecules. Clear oligomerisation-dependent differences are observed in the carotenoid region, mainly due to the appearance of a new xanthophyll absorption band at 509 in the spectra of trimers and oligomers. It is ascribed to some lutein molecules, in agreement with previous experimental observations. The electro-optic properties of these lutein molecules are significantly different from those of the other xanthophylls in LHCII, which do not exhibit such a big change in dipole moment upon electronic excitation (\%Delta%(μ) over right arrow \= 14.6 +/- %2%.0 D/f). Upon aggregation of LHCII some extra absorption appears on the red side of the main Chl a Q(y) absorption band. In contrast to an earlier suggestion [J. Phys. Chem., A 103 (1999) 2422], no indications are found for the charge-transfer character of the corresponding band. The assignments of the S-%2% electronic transitions of neoxanthin and lutein in LHCII and possible origins of the Stark effect are discussed. (C) 2003 Elsevier B.V. All rights reserved.

2/7/77 (Item 20 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

11705832 Genuine Article#: 684TW Number of References: 56
Title: The effects of structural and microenvironmental disorder on the electronic properties of poly[%2%-methoxy,5-(%2% '-ethyl-hexoxy)-1,4-phenylene vinylene] (MEH-PPV) and related oligomers
Author(s): Wachsmann-Hogiu S; Peteanu LA (REPRINT) ; Liu LA; Yaron DJ; Wildeman J
Corporate Source: Carnegie Mellon Univ,Dept Chem,4400 5th Ave/Pittsburgh//PA/15213 (REPRINT); Carnegie Mellon Univ,Dept Chem,Pittsburgh//PA/15213; Univ Groningen,Dept Polymer Chem,NL-9747 AG Groningen//Netherlands/; Univ Groningen,Ctr Mat Sci,NL-9747 AG Groningen//Netherlands/
Journal: JOURNAL OF PHYSICAL CHEMISTRY B, 2003, V107, N22 (JUN 5), P 5133-5143
ISSN: 1520-6106 Publication date: 20030605
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA
Language: English Document Type: ARTICLE
Abstract: In this study, electroabsorption (Stark) spectroscopy is used to determine the trace of the change in polarizability (%tr% (&UDelta;x) over bar) and the absolute value of the change in dipole moment (/ %Delta%(μ) over right arrow/) of the electroluminescent polymer poly [%2%-methoxy,5-(%2%'-ethyl-hexoxy)- 1,4-phenylene vinylene] (MEH-PPV) and several model oligomers in L solvent glass matrixes. We find a value of %tr% (&UDelta;&%alpha%;) over left right arrow of similar to2000 Angstrom(3) for the polymer and for a 9-ring substituted oligomer in both toluene and %2%-methyl tetrahydrofuran matrixes at 77 K with smaller values being obtained for 3- and 5-ring unsubstituted oligomers. Although gas-phase calculations of %tr% /(&UDelta;&%alpha%;) over left right arrow/. using INDO/SCI yield values that are about a factor of 8 smaller than the experiment, excellent agreement is obtained when the effects of solid-state dielectric screening are included. Screening increases %tr% /(&UDelta;x) over left right arrow/ by bringing the energy gap between the 1B(u) and mA(g) states into agreement with solid-state measurements. Substantial values of /%Delta% (μ) over right arrow/ are observed experimentally both for the polymer and for the oligomers (6-11 D). Because in a planar (C-2h) geometry the oligomer and polymer are centrosymmetric, the observed / %Delta%(μ) over bar/ is an indication of disorder-induced symmetry breaking in the material. Calculations indicate that disorder in the ground-state geometry of the polymer (inner-sphere disorder) can account for nearly half of the observed /%Delta%(μ) over right arrow/. Disorder in the glassy environment (outer-sphere disorder) leads to a nonuniform electrostatic environment, and calculations show that this is a substantial contributor, accounting for the remainder of the observed /%Delta%(μ) over right arrow/.

2/7/78 (Item 21 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

10009306 Genuine Article#: 473GT Number of References: 26
Title: Partial molar volumes of transfer of some amino acids from water to aqueous glycerol solutions at 25 degrees C
Author(s): Banipal TS (REPRINT) ; Singh G; Lark BS
Corporate Source: Guru Nanak Dev Univ,Dept Pharmaceut Sci,Amritsar 143005/Punjab/India/ (REPRINT); Guru Nanak Dev Univ,Dept Pharmaceut Sci,Amritsar 143005/Punjab/India/; Guru Nanak Dev Univ,Dept Chem,Amritsar 143005/Punjab/India/
Journal: JOURNAL OF SOLUTION CHEMISTRY, 2001, V30, N7 (JUL), P657-670
ISSN: 0095-9782 Publication date: 20010700
Publisher: KLUWER ACADEMIC/PLENUM PUBL, 233 SPRING ST, NEW YORK, NY 10013 USA
Language: English Document Type: ARTICLE
Abstract: Apparent molar volumes of glycine, DL-%alpha% -alanine, L-valine, L-leucine, and L-phenylalanine in 0.5, 1.0, %2%.0, 3.5, and 5.0 m(B) (mol-kg(-1)) aqueous solutions of glycerol have been obtained from solution densities at 25 degreesC using precise vibrating-tube digital densimeter. The estimated partial molar volumes at infinite dilution V(%2%)degrees have been used to obtain the corresponding transfer volumes %Delta% (%tr%)V(%2%)degrees from water to different glycerol-water mixtures. The transfer volumes are positive for glycine and DL-%alpha% -alanine, and both positive and negative for the other amino acids over the concentration range studied. Interaction coefficients have been obtained from McMillan-Mayer approach and the data have been interpreted in terms of solute-cosolute interactions.

2/7/79 (Item 22 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09771471 Genuine Article#: 445DQ Number of References: 34
Title: Functional interference between thyroid hormone receptor %alpha% (%TR% %alpha%) and natural truncated %TR% %Delta% %alpha% isoforms in the control of intestine development
Author(s): Plateroti M; Gauthier K; Domon-Dell C; Freund JN; Samarut J (REPRINT) ; Chassande O
Corporate Source: Ecole Normale Super Lyon,Lab Biol Mol & Cellulaire, CNRS, UMR 5665,LA INRA 913,46 Allee Italie/F-69364 Lyon 07//France/ (REPRINT) ; Ecole Normale Super Lyon,Lab Biol Mol & Cellulaire, CNRS, UMR 5665,LA INRA 913,F-69364 Lyon 07//France/; INSERM,U381,F-67200 Strasbourg//France/
Journal: MOLECULAR AND CELLULAR BIOLOGY, 2001, V21, N14 (JUL), P4761-4772
ISSN: 0270-7306 Publication date: 20010700
Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
Language: English Document Type: ARTICLE
Abstract: Thyroid hormone is known to participate in the control of intestine maturation at weaning. Its action is mediated by the thyroid hormone nuclear receptors, encoded by the %TR% %alpha% and %TR% beta genes. Since previous studies have shown that %TR% beta plays a minor role in the gut, we focused here our analysis on the %TR% %alpha% gene. The %TR% %alpha% locus generates the %TR% %alpha% receptor together with the splicing variant %TR% alpha2 and the truncated products %TR% %Delta% alpha1 and %TR% %Delta% alpha2, which all lack an intact ligand binding domain. The %TR% %Delta% %alpha% isoforms are transcribed from an internal promoter located in intron 7, and their distribution is restricted to a few tissues including those of the intestine. In order to define the functions of the different isoforms encoded by the %TR% %alpha% locus in the intestinal mucosa, we produced mice either lacking all known %TR% %alpha% products or harboring a mutation which inactivates the intronic promoter. We performed a detailed analysis of the intestinal phenotypes in these mice and compared it to that of the previously described %TR% %alpha% (-/-) mice, in which %TR% %alpha% isoforms are abolished but the %TR% %Delta% %alpha% isoforms remain. This comparative analysis leads us to the following conclusions: (i) the %TR% %alpha% receptor mediates the T3-dependent functions in the intestine at weaning time and (ii) the %TR% %Delta% %alpha% products negatively control the responsiveness of the epithelial cells to T3. Moreover, we show that %TR% %Delta% %alpha% proteins can interfere with the transcription of the intestine-specific homeobox genes cdx1 and cdx2 and that their activity is regulated by %TR% alpha1. Altogether these data demonstrate that cooperation of %TR% %alpha% and %TR% %Delta% %alpha% products is essential to ensure the normal postnatal development of the intestine and that mutations in the %TR% %alpha% locus can generate different phenotypes caused by the disruption of the equilibrium between these products.

2/7/80 (Item 23 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09726007 Genuine Article#: 441DG Number of References: 13
Title: Preparation of gamma-alumina membranes from sulphuric electrolyte anodic alumina and its transition to %alpha%-alumina
Author(s): Ozao R (REPRINT) ; Ochiai M; Yoshida H; Ichimura Y; Inada T
Corporate Source: SONY Inst,N Shore Coll,Kanagawa 2438501//Japan/ (REPRINT) ; SONY Inst,N Shore Coll,Kanagawa 2438501//Japan/; Tokyo Metropolitan Univ,Tokyo 1920397//Japan/; Seiko Instruments Inc,Mihama Ku,Chiba 2618507//Japan/; Japan Fine Ceram Ctr,Atsuta Ku,Aichi 4568587//Japan/
Journal: JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, 2001, V64, N3, P 923-932
ISSN: 1418-2874 Publication date: 20010000
Publisher: KLUWER ACADEMIC PUBL, SPUIBOULEVARD 50, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: Gamma-alumina membrane was prepared from anodic (amorphous) alumina (AA) obtained in a sulphuric acid electrolyte. The transformation scheme, i.e., the crystallization to form metastable alumina polymorphs and the final transition to %alpha% -Al2O3 with heating was studied by TG-DTA and X-ray diffraction (XRD) using fixed time (FT) method. When heating at a constant rate, the crystallization occurred at 900 degreesC or higher and the final formation of %alpha% -Al2O3 occurred at 1250 degreesC or higher, which temperatures were higher than the case of using anodic (amorphous) alumina prepared from oxalic acid electrolyte. Relative content of S of the products was obtained by transmission electron microscope (TEM)-energy dispersive spectroscopy (EDS). The proposed thermal change of anodic alumina membrane prepared from sulphuric acid is as follows:

1. At temperatures lower than ca 910 degreesC: Formation of a quasi-crystalline phase or a polycrystalline phase (gamma-, %delta%- and theta -Al2O3);

%2%. 910-960 degreesC: Progressive crystallization by the migration of S toward the surface within the amorphous or the quasi-crystalline phase, forming S-rich region near the surface;

3. 960 degreesC: Change of membrane morphology and the quasi-crystalline phase due to the rapid discharge of gaseous SO2;

4. 960-1240 degreesC: Crystallization of gamma -Al2O3 accompanying %delta% -Al2O3; and

5. 1240 degreesC: Transition from gamma -Al2O3 (+%tr%. %delta% -Al2O3) into the stable %alpha% -Al2O3.

The amorphization which occurs by the exothermic and the subsequent endothermic reaction suggests the incorporation of SO3 groups in the quasi-crystalline structure.

2/7/81 (Item 24 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09668175 Genuine Article#: 435FJ Number of References: 52
Title: Phorbol esters and related analogs regulate the subcellular localization of beta %2%-chimaerin, a non-protein kinase C phorbol ester receptor
Author(s): Caloca MJ; Wang HB; Delemos A; Wang SM; Kazanietz MG (REPRINT)
Corporate Source: Univ Penn,Sch Med, Ctr Expt Therapeut,816 Biomed Res Bldg 2-3,421 Curie Blvd/Philadelphia//PA/19104 (REPRINT); Univ Penn,Sch Med, Ctr Expt Therapeut,Philadelphia//PA/19104; Univ Penn,Sch Med, Dept Pharmacol,Philadelphia//PA/19104; Georgetown Univ,Med Ctr, Georgetown Inst Cognit & Computat Sci,Washington//DC/20007
Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 2001, V276, N21 (MAY 25), P 18303-18312
ISSN: 0021-9258 Publication date: 20010525
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA
Language: English Document Type: ARTICLE
Abstract: The novel phorbol ester receptor beta2-chimaerin is a Rac-GAP protein possessing a single copy of the C1 domain, a 50-amino acid motif initially identified in protein kinase C (PKC) isozymes that is involved in phorbol ester and diacylglycerol binding. We have previously shown that, like PKCs, beta2-chimaerin binds phorbol esters with high affinity in a phospholipid-dependent manner (Caloca, M. J., Fernandez, M. N,, Lewin, N. E., Ching, D., Modali, R., Blumberg, P. M., and Kazanietz, M. G. (1997) J. Biol. Chem. 272, 26488-26496). In this paper we report that like PKC isozymes, beta2-chimaerin is translocated by phorbol esters from the cytosolic to particulate fraction. Phorbol esters also induce translocation of alpha1 (n)- and beta1-chimaerins, suggesting common regulatory mechanisms for all chimaerin isoforms. The subcellular redistribution of beta2-chimaerin by phorbol esters is entirely dependent on the C1 domain, as revealed by deletional analysis and site-directed mutagenesis. Interestingly, beta2-chimaerin translocates to the Golgi apparatus after phorbol ester treatment, as

revealed by co-staining with the Golgi marker BODIPY-%TR%-ceramide. Structure relationship analysis of translocation using a series of PKC ligands revealed substantial differences between translocation of beta2-chimaerin and PKC %alpha%. Strikingly, the mezerein analog thymeleatoxin is not able to translocate beta2-chimaerin, although it very efficiently translocates PKC %alpha%. Phorbol esters also promote the association of beta2-chimaerin with Rac in cells. These data suggest that chimaerins can be positionally regulated by phorbol esters and that each phorbol ester receptor class has distinct pharmacological properties and targeting mechanisms. The identification of selective ligands for each phorbol ester receptor class represents an important step in dissecting their specific cellular functions.

2/7/82 (Item 25 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09322357 Genuine Article#: 391CZ Number of References: 12
Title: Electron-phonon coupling origin of the resistivity in YNi2B2C single crystals
Author(s): Gonnelli RS (REPRINT) ; Morello A; Ummarino GA; Stepanov VA; Behr G; Graw G; Shulga SV; Drechsler SL
Corporate Source: Politecn Turin,Dipartimento Fis, INFM,Corso Duca Abruzzi 24/I-10129 Turin//Italy/ (REPRINT); Politecn Turin,Dipartimento Fis, INFM,I-10129 Turin//Italy/; Russian Acad Sci,PN Lebedev Phys Inst,Moscow//Russia/; Inst Festkorper & Werkstofforsch Dresden,D-01171 Dresden//Germany/
Journal: INTERNATIONAL JOURNAL OF MODERN PHYSICS B, 2000, V14, N25-27 (OCT 30), P2840-2845
ISSN: 0217-9792 Publication date: 20001030
Publisher: WORLD SCIENTIFIC PUBL CO PTE LTD, JOURNAL DEPT PO BOX 128 FARRER ROAD, SINGAPORE 912805, SINGAPORE
Language: English Document Type: ARTICLE
Abstract: Resistivity measurements from 4.%2% K up to 300 K were made on YNi2B2C single crystals with T-c =15.5 K. The resulting rho (T) curve shows a perfect Bloch-Gruneisen (BG) behavior, with a very small residual resistivity which indicates the low impurity content and the high cristallographic quality of the samples. The value lambda (%tr%) =0.53 for the transport electron-phonon coupling constant was obtained by using the high-temperature constant value of d rho /dT and the plasma frequency reported in literature. The BG expression for the phononic part of the resistivity rho (ph)(T) was then used to fit the data in the whole temperature range, by approximating %alpha% (%2%)(%tr%)(Omega) with the experimental phonon spectral density G(Omega) multiplied by a two-step weighting function to be determined by the fit. The resulting fitting curve perfectly agrees with the experimental points. We also solved the red-axis Eliashberg equations in both s- and d-wave symmetries under the approximation %alpha% F-%2%(Omega) approximate to %alpha% F-%2%(%tr%)(Omega). We found that the value of lambda (%tr%) here determined in single-band approximation is quite compatible with T-c and the gap %Delta% experimentally observed. Finally, we calculated the normalized tunneling conductance, whose comparison with break-junction tunnel data gives indication of the possible s-wave symmetry for the order parameter in YNi2B2C.

2/7/83 (Item 26 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09317695 Genuine Article#: 391ZC Number of References: 13
Title: The role of activated %alpha%-carbon atom hydrogen in salting-in effect on tris(%alpha%-amino acidato)cobalt(III)
Author(s): Yoshimura Y (REPRINT)
Corporate Source: Iwate Univ,Fac Humanities & Social Sci, Chem Lab,Morioka/Iwate 0208550/Japan/ (REPRINT); Iwate Univ,Fac Humanities & Social Sci, Chem Lab,Morioka/Iwate 0208550/Japan/
Journal: BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN, 2000, V73, N12 (DEC), P 2739-2746
ISSN: 0009-2673 Publication date: 20001200
Publisher: CHEMICAL SOC JAPAN, 1-5 KANDA-SURUGADAI CHIYODA-KU, TOKYO, 101, JAPAN
Language: English Document Type: ARTICLE
Abstract: In order to examine the role of activated a-carbon atom hydrogen of cr-amino acid in the salt effect on tris(%alpha% -amino acidato)cobalt(III) ([Co(aa)(3)]), the solubilities of mer- and fac-tris(%2%-aminoisobutyrato)cobalt(III) (mer- and fac-[Co(aiba)(3)]) in water and in aqueous NaBr and tetrabutylammonium bromide (Bu4NBr) solutions were determined over the temperature range 5 to 40 degreesC. From these solubility data, the standard enthalpy (%Delta% H-%tr%(0)) and entropy of transfer (%Delta% S-%tr%(0)) at 25 degreesC for mer- and fac-[Co(aiba)(3)] from water to the aqueous NaBr and Bu4NBr solutions were estimated. A comparison with the %Delta% H-%tr%(0) and T %Delta% S-%tr%(0) data for mer-[Co(aa)(3)] of L-leucine (leuH). L-alanine (alaH), and glycine (glyH) shows that both %Delta% H-%tr%(0) and T %Delta% S-%tr%(0) for the transfer of mer-[Co(aa)(3)] to the NaBr solutions are negative; the large negative %Delta% H-%tr%(0) increases the solubility of mer-[Co(aa)(3)] (salting-in effect). Both %Delta% H-%tr%(0) and T %Delta% S-%tr%(0) decrease in the order of mer-[Co(aiba)(3)] > mer-(+)-[Co(L-leu)(3)] > mer-(+)-[Co(L-ala)(3)] > mer-[Co(gly)(3)]. This sequence is explained by the assumption that activated a-carbon atom hydrogen enhances interactions of mar-[Co(aa)(3)] with the surroundings. The effect of Bu4NBr can be accounted for by hydrophobic interaction of [Co(aiba)(3)] with Bu4N+ ion and the hydrophobic interaction of fac-[Co(aiba)(3)] is larger than the interaction of mer-[Co(aiba)(3)].

2/7/84 (Item 27 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

08926150 Genuine Article#: 345PN Number of References: 36
Title: Polaris: astrometric orbit, position, and proper motion
Author(s): Wielen R (REPRINT) ; Jahreiss H; Dettbarn C; Lenbardt H; Schwan H
Corporate Source: ASTRON RECH INST,MOENCHHOFSTR 12-14/D-69120 HEIDELBERG//GERMANY/ (REPRINT)
Journal: ASTRONOMY AND ASTROPHYSICS, 2000, V360, N1 (AUG), P399-410
ISSN: 0004-6361 Publication date: 20000800
Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010
Language: English Document Type: ARTICLE
Abstract: We derive the astrometric orbit of the photo-center of the close pair %alpha% UMi AP (= %alpha% UMi Aa) of the Polaris multiple stellar system. The orbit is based on the spectroscopic orbit of the Cepheid %alpha% UMi A (orbital period of AP: 29.59 years), and on the difference %Delta% mu between the quasi-instantaneously measured HIPPARCOS proper motion of Polar-is and the longterm-averaged proper motion given by the FK5. There remains an ambiguity in the inclination i of the orbit, since %Delta% mu cannot distinguish between a prograde orbit (i = 50 degrees.1) and a retrograde one (i = 130 degrees.%2%). Available photographic observations of Polaris favour strongly the retrograde orbit. For the semi-major axis of the photo-center of AP we find about 29 milliarcsec (mas). For the component P, we estimate a mass of 1.5 M. and a magnitude difference with respect to the Cepheid of 6.5 mag. The present separation between A and P should be about 160 mas.

We obtain the proper motion of the center-of-mass of %tr% UMi AP with a mean error of about 0.45 mas/year. Using the derived astrometric orbit, we find the position of the center-of-mass at the epoch 1991.31 with an accuracy of about 3.0 mas. Our ephemerides for the orbital correction, required for going from the position of the center-of-mass to the instantaneous position of the photo-center of AP at an arbitrary epoch, have a typical uncertainty of 5 mas. For epochs which differ from the HIPPARCOS epoch by more than a few years, a prediction for the actual position of Polaris based on our results should be significantly more accurate than using the HIPPARCOS data in a linear prediction, since the HIPPARCOS proper motion contains the instantaneous orbital

motion of about 4.9 mas/year = 3.1 km/s. Finally we derive the galactic space motion of Polaris.

2/7/85 (Item 28 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

08694936 Genuine Article#: 318FH Number of References: 14
Title: DSC study of alumina materials - applicability of transient DSC (%Tr%-DSC) to anodic alumina (AA) and thermoanalytical study of AA
Author(s): Ozao R (REPRINT) ; Ochiai M; Ichimura N; Takahashi H; Inada T
Corporate Source: SONY INST,N SHORE COLL/ATSUGI/KANAGAWA 2438501/JAPAN/ (REPRINT); SEIKO INSTRUMENTS INC,/CHIBA 2618507//JAPAN/; JAPAN FINE CERAM CTR,/NAGOYA/AICHI 4568587/JAPAN/
Journal: THERMOCHIMICA ACTA, 2000, V352 (JUL 3), P91-97
ISSN: 0040-6031 Publication date: 20000703
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: Thermo-analytical studies were performed on two types of porous anodic alumina (AA) membranes prepared from sulfuric acid. Both samples were 150 mu m in total thickness; the first sample AA-1 consists of a 50 mu m thick layer having 10 nm diameter pores and a 100 mu m thick layer of 25 nm diameter pores, and the second sample AA-%2% consists only of 25 nm pores. From the high temperature DSC run, the AA membranes as received were found to undergo dehydration up to 350 degrees C where they exhibit a plateau, and at ca. 970 degrees C, they yield a sharp exotherm immediately followed by a distinct endotherm.

The apparent C-p values obtained by %Tr%-DSC at 350 degrees C differed depending on the contact area of the samples with the sample pan or on the impurity content. The contact area depends on the pore diameter that is a function of applied voltage, and the impurity content similarly depends on the applied voltage. It is therefore presumed that %Tr%-DSC is advantageous in that it is a quick and handy method in obtaining apparent C-p as a parameter to identify samples differing in the properties which depend on the voltage applied at the preparation.

In addition, the thermal changes obtained on the present AA membranes were found to be different from those obtained by oxalic acid known in the literature. That is, the present AA membranes exhibit a sharp exothermic reaction followed by a broad endothermic reaction apparently attributed to an amorphous to polycrystalline (AA --> gamma-+%delta%-Al2O3) transition, and, a exothermic reaction at ca. 1400 degrees C, presumably due to the final transformation from the metastable ccp polycrystalline alumina to the most stable phase, i.e., the hcp %alpha%-Al2O3. The transformation temperatures are higher than those of AA prepared from oxalic acid by 150-300 degrees C.

2/7/86 (Item 29 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

08152629 Genuine Article#: 252UW Number of References: 34
Title: Trilostane but not prostaglandin F-%2% %alpha% (PGF2 %alpha%) or cortisol aborts 90-day-pregnant lutectomized sheep
Author(s): Weems YS; Vincent DL; Lemme C; Weems CW (REPRINT)
Corporate Source: UNIV HAWAII MANOA,DEPT ANIM SCI/HONOLULU//HI/96822 (REPRINT); UNIV HAWAII MANOA,DEPT ANIM SCI/HONOLULU//HI/96822
Journal: PROSTAGLANDINS & OTHER LIPID MEDIATORS, 1999, V58, N2-4 (OCT), P 77-86
ISSN: 0090-6980 Publication date: 19991000
Publisher: ELSEVIER SCIENCE INC, 655 AVENUE OF THE AMERICAS, NEW YORK, NY 10010
Language: English Document Type: ARTICLE
Abstract: Ewes were lutectomized and treatments were started 72 h later. Pregnant ewes were treated with vehicle; prostaglandin F(%2%)%alpha% (PGF(%2%)%alpha%); cortisol (C); trilostane (%TR%), a 3 beta-hydroxy-steroid dehydrogenase inhibitor; PGF(%2%)%alpha% + C; %TR% + PGF(%2%)%alpha%; %TR% + C, or %TR% + PGF(%2%) + C. %TR%, %TR% + PGF(%2%)%alpha%, %TR% + C, and %TR% + PGF(%2%)%alpha% + C aborted (P less than or equal to 0.05) all ewes receiving %TR%. One ewe treated with PGF(%2%)%alpha% aborted (P greater than or equal to 0.05). The average time to abortion of %TR%-treated ewes was 50.8 h (P less than or equal to 0.05) after initiation of treatments. All aborted ewes had retained placentas (P less than or equal to 0.05) except one ewe in the %TR% + PGF(%2%)%alpha%, treatment group. %TR% was given every 12 h starting at 72 h postlutectomy until 96 h postlutectomy. %TR% reduced (P less than or equal to 0.05) progesterone. Estradiol-17 beta was increased (P less than or equal to 0.05) %2% h after the first two %TR% treatments and declined %2% h later and was followed by a sustained increase (P l 0.05) in estradiol-17 beta, which was coincident with the onset of abortions. Estradiol-17 beta was increased (P less than or equal to 0.05) by PGF(%2%)%alpha% but did not decrease (P greater than or equal to 0.05) placental secretion of progesterone, It is concluded that %TR% but not PGF(%2%)%alpha% is an abortifacient in 90-day-pregnant lutectomized ewes and that abortion occurs only when there is a decrease in circulating progesterone and an increase in circulating estradiol-17 beta.

2/7/87 (Item 30 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07895809 Genuine Article#: 221ET Number of References: 40
Title: Structure/function analysis of human cystatin SN and comparison of the cysteine proteinase inhibitory profiles of human cystatins C and SN
Author(s): Hiltke TR; Lee TC; Bobek LA (REPRINT)
Corporate Source: SUNY BUFFALO,SCH DENT MED, DEPT ORAL BIOL, 109 FOSTER HALL/BUFFALO//NY/14214 (REPRINT); SUNY BUFFALO,SCH DENT MED, DEPT ORAL BIOL/BUFFALO//NY/14214; SUNY BUFFALO,SCH MED, DEPT BIOCHEM/BUFFALO//NY/14214
Journal: JOURNAL OF DENTAL RESEARCH, 1999, V78, N8 (AUG), P1401-1409
ISSN: 0022-0345 Publication date: 19990800
Publisher: AMER ASSOC DENTAL RESEARCH, 1619 DUKE ST, ALEXANDRIA, VA 22314
Language: English Document Type: EDITORIAL MATERIAL
Abstract: Cystatins are reversible, competitive inhibitors of cysteine proteinases. Their inhibitory profiles, as well as their affinities for target enzymes, vary with different cysteine proteinases. Human cystatin C and salivary cystatin SN are 120- and 121-amino-acid (a.a.) proteins, respectively, and both contain %2% disulfide bonds. In this study, we examined the structure/function relationship of cystatin SN with respect to the inhibition of papain, with particular emphasis on the role of cystatin SN's cysteine residues, and addressed the inhibitory profiles of these two human cystatins on several cysteine proteinases (papain, clostripain, and calpain II). The full-length recombinant cystatin C and cystatin SN, and cystatin SN variants (C-truncated [C-%tr%; a.a. 1-102], %Delta% 56-60 deletion, cysteine 74 --> serine [C74S], cys 84 --> serine [C84S], cysteine 98 --> serine [C98S], and cysteine 118 --> serine [C118S]) were cloned, expressed, and produced in the pET30(b) and pGEX2T Escherichia coli expression systems. AU. recombinant proteins were tested for the inhibition of papain, and the full-length proteins were also tested for the inhibition of clostripain and calpain II. The secondary structures of the cystatins were also determined and compared. The results showed that the full-length cystatin C and cystatin SN, and the cystatin SN variants C98S and C118S inhibited the activity of papain. However, cystatin SN C-%tr% and %Delta% 56-60 variants exhibited no inhibitory activity toward papain, while the cystatin SN variants C74S and C84S exhibited slight inhibition at higher concentrations. These results suggested that in the inhibition of papain by cystatin SN, the first disulfide loop is more important than the second. In addition, cystatin C, but not cystatin SN, inhibited calpain II, while neither cystatin inhibited clostripain, and these results, in conjunction with those from other studies, indicated that cystatin C is a broader-spectrum inhibitor of cysteine proteinases than cystatin SN.

2/7/88 (Item 31 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07858119 Genuine Article#: 216KJ Number of References: 31
Title: Hydrophobic interaction of mer-tris(%alpha%-amino acidato)cobalt(III) with tetrabutylammonium ion
Author(s): Yoshimura Y (REPRINT)
Corporate Source: IWATE UNIV,FAC HUMANITIES & SOCIAL SCI, CHEM LAB/MORIOKA/IWATE 0208550/JAPAN/ (REPRINT) ,
Journal: BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN, 1999, V72, N6 (JUN), P 1285-1292
ISSN: 0009-2673 Publication date: 19990600
Publisher: CHEMICAL SOC JAPAN, 1-5 KANDA-SURUGADAI CHIYODA-KU, TOKYO 101, JAPAN
Language: English Document Type: ARTICLE
Abstract: An interaction of NaBr, NH4Br, Me4NBr, Et4NBr, Pr4NBr, Bu4NBr, and NaBPh4 with mer-(+)-tris(L-alaninato)cobalt(III) (mer-(+)-[Co(L-ala)(3)]) was examined by estimating the standard enthalpy (%Delta% H-%tr%(o)) and entropy of transfer (%Delta% S-%tr%(o)) of mer-(+)-[Co(L-ala)(3)] from water to the salt solutions on the basis of the temperature dependence of solubility. A difference in correlation between %Delta% H-%tr%(o) and T %Delta% S-%tr%(o), demonstrated that while NaBr and NH4NBr increase the solubility of mer-(+)-[Co(L-ala)(3)] by hydrophilic interaction, Pr4NBr, Bu4NBr, and NaBPh4 increase the solubility of mer-(+)-[Co(L-ala)(3)] by hydrophobic interaction. On the basis of this finding, %Delta% H-%tr%(o) and T %Delta% S-%tr%(o), of the transfer from water to aqueous Bu4NBr solution for the mer-tris(aniono)cobalt(III) of glycine (glyH), L-alanine (alaH), L-serine (serH), DL-%2%-aminobutylic acid (abaH), DL-norvaline (nvalH), L-valine (valH), and L-leucine (leuH) led to the conclusion that hydrophobicity of the amino acids increases in the order of glyH < serH < alaH < abaH < nvalH < valH < leuH. This conclusion is compared with the hydrophobicity order reported in the literature.

2/7/89 (Item 32 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07824057 Genuine Article#: 212HH Number of References: 50
Title: Auxiliary subunits operate as a molecular switch in determining gating behaviour of the unitary N-type Ca2+ channel current in Xenopus oocytes
Author(s): Wakamori M; Mikala G; Mori Y (REPRINT)
Corporate Source: NATL INST PHYSIOL SCI,DEPT INFORMAT PHYSIOL/AICHI 4448585//JAPAN/ (REPRINT); NATL INST PHYSIOL SCI,DEPT INFORMAT PHYSIOL/AICHI 4448585//JAPAN/; IMRE HAYNAL UNIV HLTH,DEPT INTERNAL MED 1, DIV CLIN PHARMACOL/H-1335 BUDAPEST//HUNGARY/; UNIV CINCINNATI,COLL MED, INST MOL PHARMACOL & BIOPHYS/CINCINNATI//OH/45267
Journal: JOURNAL OF PHYSIOLOGY-LONDON, 1999, V517, N3 (JUN 15), P659-672
ISSN: 0022-3751 Publication date: 19990615
Publisher: CAMBRIDGE UNIV PRESS, 40 WEST 20TH STREET, NEW YORK, NY 10011-4211
Language: English Document Type: ARTICLE
Abstract: 1. We systematically examined the biophysical properties of omega-conotoxin GVIA-sensitive neuronal N-type channels composed of various combinations of the %alpha%(1B), %alpha%(%2%)/%delta% and beta(1b) subunits in Xenopus oocytes.

%2%. Whole-cell recordings demonstrated that coexpression of the beta(1b) subunit decelerated inactivation, whereas the %alpha%(%2%)/%delta% accelerated both activation and inactivation, and cancelled the kinetic effects of the beta(1b). The %alpha%(%2%)/%delta% and the beta(1b) controlled voltage dependence of activation differently: the beta(1b) significantly shifted the current-voltage relationship towards the hyperpolarizing direction; however, the %alpha%(%2%)/%delta% shifted the relationship only slightly in the depolarizing direction. The extent of voltage-dependent inactivation was modified solely by the beta(1b).

3. Unitary currents measured using a cell-attached patch showed stable patterns of opening that were markedly different among subunit combinations in their kinetic parameters. The %alpha% %2%/%delta% and the beta(1b) subunits also acted antagonistically in regulating gating patter ns of unitary M-type channels. Open time was shortened by the %alpha%(%2%)/%delta%, while the fraction of long opening was enhanced by the beta(1b). The %alpha%(%2%)/%delta% decreased opening probability (P-o), while the beta(1b) increased P-o. %alpha%(1B)%alpha%(%2%)/%delta% beta(1b) produced unitary activity with an open time distribution value in between those of %alpha%(1B)%alpha%(%2%)/%delta%. However, both the %alpha%(%2%)/%delta% and the beta(1b), subunits reduced the number of null %tr% aces.

4. These results suggest that the auxiliary subunits alone and in combination contribute differently in forming gating apparatuses in the N-type channel, raising the possibility that subunit interaction contributes to the generation of functional diversity of N-type channels in native neuronal preparations also.

2/7/90 (Item 33 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07454636 Genuine Article#: 168BU Number of References: 19
Title: An investigation of the electrochemical intercalation of lithium into a Li1-%delta% CoO2 electrode based upon numerical analysis of potentiostatic current transients
Author(s): Shin HC; Pyun SI (REPRINT)
Corporate Source: KOREA ADV INST SCI & TECHNOL,DEPT MAT SCI & ENGN, YUSONG GU, 373-1 KUSONG DONG/TAEJON 305701//SOUTH KOREA/ (REPRINT); KOREA ADV INST SCI & TECHNOL,DEPT MAT SCI & ENGN, YUSONG GU/TAEJON 305701//SOUTH KOREA/
Journal: ELECTROCHIMICA ACTA, 1999, V44, N13, P2235-2244
ISSN: 0013-4686 Publication date: 19990000
Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Lithium insertion into a porous Li1-deltaCoO2 electrode was investigated by numerical analysis of potentiostatic cathodic current transients. As lithium was intercalated, the current transients at first exhibited two-stage behavior in the presence of a single phase. This was later replaced by a three-stage character when a Li-diluted %alpha% phase coexisted with a Li-concentrated beta phase. From the comparison of derivatives of the experimental logarithmic current transients with those numerically simulated, it is suggested that the chemical diffusivity of lithium ion predominantly determines the shapes of the first stage of the current transients when the two phases coexist and of the later stage of the current transients when only a single phase exists. The derivatives of the second stages of the linear and logarithmic current transients during the coexistence of two phases were observed to be characterized by an upward concave shape, indicating that lithium insertion proceeds via phase boundary movement (PBM). Transition times t(%tr%(1)) and t(%tr%(%2%)) were determined as the times of the local maxima on the derivatives of the experimental linear and logarithmic transients, respectively. These time values correspond to the onset and end of the PBM. The current transient and its derivative were simulated as functions of equilibrium stoichiometry through the numerical analysis for lithium transport under the condition for potentiostatic lithium injection into the electrode subjected to the limitation placed by the 'pinning' of the phase boundary and the impermeable constraint to lithium. The numerically simulated current transient and the derivative of the second stage of the transient qualitatively matched those experimentally determined as functions of applied potential in their three-stage character and upward concave shape, respectively.

2/7/91 (Item 34 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07080023 Genuine Article#: 121LQ Number of References: 26
Title: Gibbs energy of formation of SiC: A contribution to the thermodynamic stability of the modifications
Author(s): Kleykamp H (REPRINT)
Corporate Source: FORSCHUNGSZENTRUM KARLSRUHE,INST MAT FORSCH 1, POSTFACH 3640/D-76021 KARLSRUHE//GERMANY/ (REPRINT)
Journal: BERICHTE DER BUNSEN-GESELLSCHAFT-PHYSICAL CHEMISTRY CHEMICAL PHYSICS, 1998, V102, N9 (SEP), P1231-1234
ISSN: 0005-9021 Publication date: 19980900
Publisher: VCH PUBLISHERS INC, 303 NW 12TH AVE, DEERFIELD BEACH, FL 33442-1788
Language: English Document Type: ARTICLE
Abstract: The Gibbs energy of formation %Delta%(f)G(0) of hexagonal %alpha% -SiC was determined by electromotive force (emf) measurements between 1200 and 1300 K using the galvanic cell Si, SiO2\Th(Y)O-%2%\SiO2, %alpha%-SiC, C which gives (T in K): %Delta%(f)G(0) [%alpha%-SiC] =-94770+24.24.T J/mol. The third-law enthalpy of formation was calculated as %Delta%(f)H(298)(0)[%alpha%-SiC] =-74.4 kJ/mol at 298 K. In order to examine more closely the relative stability of %alpha%-SiC and cubic beta-SiC, Gibbs energy of transformation %Delta%(%tr%)G measurements were made by the same method between 1100 and 1300 K using the cell beta-SiC, C, SiO2[Th(Y)O-%2%]SiO2, C, %alpha%-SiC. An emf of about 20 mV of the metastable cell was measured up to 5 h cell operation. This observation implies that a-SiC is the more stable modification in the investigated temperature range yielding %Delta%(%tr%)G[beta-->%alpha%-SiC] approximate to-8 kJ/mol at 1200 K.

2/7/92 (Item 35 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

07011506 Genuine Article#: 114ZN Number of References: 37
Title: Correlation function formulation for the state selected total reaction probability
Author(s): Garashchuk S (REPRINT) ; Tannor DJ
Corporate Source: UNIV NOTRE DAME,DEPT PHYS/NOTRE DAME//IN/46556 (REPRINT); UNIV NOTRE DAME,DEPT CHEM & BIOCHEM/NOTRE DAME//IN/46556; WEIZMANN INST SCI,DEPT CHEM PHYS/IL-76100 REHOVOT//ISRAEL/
Journal: JOURNAL OF CHEMICAL PHYSICS, 1998, V109, N8 (AUG 22), P3028-3036
ISSN: 0021-9606 Publication date: 19980822
Publisher: AMER INST PHYSICS, CIRCULATION FULFILLMENT DIV, 500 SUNNYSIDE BLVD, WOODBURY, NY 11797-2999
Language: English Document Type: ARTICLE
Abstract: A correlation function formulation for the state-selected total reaction probability, N-%alpha%(E), is Suggested. A wave packet, correlating with a specific set of internal reactant quantum numbers, %alpha%, is propagated forward in time until bifurcation is complete at which time the nonreactive portion of the amplitude is discarded. The autocorrelation function of the remaining amplitude is then computed and Fourier transformed to obtain a reactivity spectrum. Dividing by the corresponding spectrum of the original,unfiltered, wave packet normalizes the reactivity spectrum, yielding the fetal reaction probability from the internal state, %alpha%. The procedure requires negligible storage and just one time-energy Fourier transform for each initial reactant state; independent of the number of open channels of products. The method is illustrated numerically for the one-dimensional Eckart barrier, using both quantum-mechanical and semiclassical propagation methods. Summing over internal states of reactants gives the cumulative reaction probability, N(E). The relation to the trace formula [W. H. Miller, S. D. Schwartz, J.W. Tromp, J. Chem. Phys. 79, 4889 (1983)], N(E) = 1/%2%(%2% pi (h) over bar)(%2%) %tr%((F) over bar %delta%(H-E)(F) over bar-%delta%(H-E)), is established, and a new variant of the trace formula is presented. (C) 1998 American Institute of Physics. [S0021-9606(98)01127-1].

2/7/93 (Item 36 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

06566144 Genuine Article#: ZB161 Number of References: 15
Title: On the thermodynamics of the rhombohedral-cubic phase transition of thulium(III)oxide fluoride
Author(s): Petzel T (REPRINT) ; Muller JH; Hormann B
Corporate Source: UNIV BUNDESWEHR HAMBURG,INST WERKSTOFFTECHN, HOLSTENHOFWEG 85/D-22043 HAMBURG//GERMANY/ (REPRINT)
Journal: JOURNAL OF ALLOYS AND COMPOUNDS, 1998, V266, N1-2 (FEB 20), P 134-138
ISSN: 0925-8388 Publication date: 19980220
Publisher: ELSEVIER SCIENCE SA LAUSANNE, PO BOX 564, 1001 LAUSANNE, SWITZERLAND
Language: English Document Type: ARTICLE
Abstract: The rhombohedral(beta)-->cubic(%alpha%) phase transition of stoichiometric TmOF and the phase behaviour of samples of the analytical composition Tm(O,F), with 1.85 less than or equal to y less than or equal to %2%.10 were studied by quantitative differential thermal analysis (DTA) and by X-ray powder diffraction analysis. It was found that the beta-->%alpha% transition occurs at 808+/-3 K with an increment of the formula volume of 0.5+/-0.05 Angstrom(3), and that %alpha%-TmOF decomposes in a peritectoid reaction at ca. 915 K into a fluorite-related, presumably orthorhombic phase of composition Tm(O,F)(1.93+/-0.02) and an orthorhombic vernier-type phase of composition Tm9O8F11 with a=5.3765(5) Angstrom, b=49.402(5) Angstrom and c=5.4607(4) Angstrom. Tm(O,F)(1.93) is formed by a eutectoid reaction of C-Tm2O3 with %alpha%-TmOF at ca. 900 K, An accurate determination of the enthalpy of the beta-->%alpha% transition of TmOF was found to be impossible because of the proximity of the temperatures of transition and decomposition. Therefore the enthalpy of transition was determined indirectly by measuring the temperatures and enthalpies of transition of solid solutions Tm1-xCaxO1-xF1+x with 0.017 less than or equal to x less than or equal to 0.062 by differential scanning calorimetry (DSC). It was found that both, T-%tr% and %Delta%(%tr%)H(T(%tr%))(0), depend linearily on the CaF2 content of the solid solutions, and that the decomposition of the cubic %alpha%-modification is suppressed by the incorporation of CaF2 into the TmOF lattice. The following thermodynamic data relating to the beta-%alpha% phase transition of stoichiometric TmOF could be derived by extrapolation to the formula TmOF: %Delta%(%tr%)H(808)(0)=5343+/-267 J mol(-1) and %Delta%(%tr%)S(808)(0)=6.84+/-0.34 J mol(-1) K-1 By correlating the entropies of the beta-->%alpha% transition with the temperatures of transition of ROF with R=Y, La-Tm it was found that the entropies for R=La-Eu and Tm are clustering around 6.6+/-0.4 J mol(-1) K-1 and those for R=Gd-Er and Y around 8.5+/-0.5 J mol(-1) K-1, independently of the cationic radii, and that TmOF occupies a special position within the ROF series. (C) 1998 Elsevier Science S.A.

2/7/94 (Item 37 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

06123812 Genuine Article#: XW316 Number of References: 39
Title: Characterization of the light-harvesting antennas of photosynthetic purple bacteria by stark spectroscopy .%2%. LH2 complexes: Influence of the protein environment
Author(s): Beekman LMP; Frese RN; Fowler GJS; Picorel R; Cogdell RJ; vanStokkum IHM; Hunter CN; vanGrondelle R (REPRINT)
Corporate Source: FREE UNIV AMSTERDAM,DEPT PHYS & ASTRON, DE BOELELAAN 1081/NL-1081 HV AMSTERDAM//NETHERLANDS/ (REPRINT); FREE UNIV AMSTERDAM,DEPT PHYS & ASTRON/NL-1081 HV AMSTERDAM//NETHERLANDS/; UNIV SHEFFIELD,ROBERT HILL INST PHOTOSYNTH, DEPT MOL BIOL & BIOTECHNOL/SHEFFIELD S10 2TN/S YORKSHIRE/ENGLAND/; UNIV SHEFFIELD,KREBS INST BIOMOLEC RES/SHEFFIELD S10 2TN/S YORKSHIRE/ENGLAND/; CSIC,ESTAC EXPT AULA DEI, DEPT PLANT NUTR/E-50080 ZARAGOZA//SPAIN/; UNIV

GLASGOW,DEPT BOT/GLASGOW G12 8QQ/LANARK/SCOTLAND/
Journal: JOURNAL OF PHYSICAL CHEMISTRY B, 1997, V101, N37 (SEP 11), P 7293-7301
ISSN: 1089-5647 Publication date: 19970911
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036
Language: English Document Type: ARTICLE
Abstract: We have performed low-temperature Stark spectroscopy on a variety of different LH2 complexes from four photosynthetic bacteria, with the aim of characterizing the electric field response of the B800 and B850 absorption properties as a function of the protein environment. The following LH2 complexes were investigated: B800-850 and B800-820 of Rhodopseudomonas (Rps) acidophila; B800-850, B800-840 (%alpha% Tyr(+13)-->Phe), and B800-826 (%alpha% Tyr(+13)-->Phe, %alpha% Tyr(+14)-->Leu) of Rhodobacter (Rb.) sphaeroides; B800-850 and B800-830 (obtained at high LDAO) of Ectothiorhodospira sp.; and B800-850 of Rhodospirillum (Rsp.) molischianum. For all these cases the spectral blue shift of B850 has been assigned to the loss hydrogen-bonding interaction with the acetyl carbonyl of bacteriochlorophyll a. \%Delta% mu\values for the 850 nm bands as well as for the blue-shifted bands are all on the order of 3-4.5 D/f. The loss of hydrogen-bonding interactions has only small effects on \%Delta% mu\in these complexes. The values of the difference polarizability, %Tr%(%Delta% %alpha%), are large (600-1400 Angstrom(3)/f(%2%)). The results are discussed in terms of crystal-structure-based models for LH2, in which pigment-pigment and pigment-protein interactions are considered; strong pigment-pigment interactions were found to be especially important. The values of \ %Delta% mu\for the 800 nm band are small, 1.0-1.5 D/f for LH2 complexes from Rb. sphaeroides and Rps. acidophila. However, in Rsp. molischianum and Ectothiorhodospira sp. \%Delta% mu\values are much larger, of the order of 3 D/f. The difference in the B800 band is assigned to the difference in orientation of the B800 pigments in Rsp. molischianum and Ectothiorhodospira sp., as compared to the Rps. acidophila and Rb. sphaeroides. Due to the difference in orientation, the interactions of the Bchl a with the surrounding protein and neighboring carotenoid pigments are also not identical.

2/7/95 (Item 38 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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06123811 Genuine Article#: XW316 Number of References: 41
Title: Characterization of the light-harvesting antennas of photosynthetic purple bacteria by stark spectroscopy .1. LH1 antenna complex and the B820 subunit from Rhodospirillum rubrum
Author(s): Beekman LMP; Steffen M; vanStokkum IHM; Olsen JD; Hunter CN; Boxer SG; vanGrondelle R (REPRINT)
Corporate Source: FREE UNIV AMSTERDAM,DEPT PHYS & ASTRON, DE BOELELAAN 1081/NL-1081 HV AMSTERDAM//NETHERLANDS/ (REPRINT); FREE UNIV AMSTERDAM,DEPT PHYS & ASTRON/NL-1081 HV AMSTERDAM//NETHERLANDS/; UNIV SHEFFIELD,KREBS INST BIOMOLEC RES/SHEFFIELD S0 2TN/S YORKSHIRE/ENGLAND/ ; UNIV SHEFFIELD,ROBERT HILL INST PHOTOSYNTH, DEPT MOL BIOL & BIOTECHNOL/SHEFFIELD S0 2TN/S YORKSHIRE/ENGLAND/; STANFORD UNIV,DEPT CHEM/STANFORD//CA/94305
Journal: JOURNAL OF PHYSICAL CHEMISTRY B, 1997, V101, N37 (SEP 11), P 7284-7292
ISSN: 1089-5647 Publication date: 19970911
Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036
Language: English Document Type: ARTICLE
Abstract: We present low-temperature Stark measurements on the core light-harvesting complex 1 (LH1) of purple bacteria and the B820 subunit derived from LH1, which is a protein bound Bchl a dimer. It was found that the B820 dimer exhibits only a small Stark signal dominated by a difference dipole moment between ground and excited states, \ %Delta% mu\congruent to 1.4 D/f. The B820 complex can be reassociated to form LH1-like (B873) complexes, and this aggregation process induces a dramatic increase in the Stark parameters; \%Delta% mu\congruent to 3.7 D/f and %Tr%(%Delta% %alpha%) congruent to 1300-1800 Angstrom(3)/f(%2%). No significant differences were found between the B873 complex and the native LH1 antenna. The electrooptic properties of LH1 are compared to those of the special pair of the reaction center and the peripheral antenna complex, LH2, and discussed in the context of the ringlike structures observed for bacterial light-harvesting complexes. It is argued that the strong Stark signal of LH1 arises from mixing of charge transfer states with the exciton states of closely interacting pigments, the smallest possible unit being a Bchl a dimer. The absence of a strong Stark signal in B820 is most likely due to a small structural rearrangement of the protein bound dimer and the loss of interactions with neighboring pigments compared to the case of LH1.

2/7/96 (Item 39 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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05557315 Genuine Article#: WG008 Number of References: 5
Title: Thermal decomposition and kinetic data of Cd(BF4)%2% center dot 6H(%2%)O
Author(s): Georgiev MP (REPRINT) ; Maneva M
Corporate Source: SOFIA TECHNOL UNIV,DEPT INORGAN CHEM/SOFIA 1156//BULGARIA/ (REPRINT)
Journal: JOURNAL OF THERMAL ANALYSIS, 1996, V47, N6 (DEC), P1729-1733
ISSN: 0368-4466 Publication date: 19961200
Publisher: JOHN WILEY & SONS LTD, BAFFINS LANE CHICHESTER, W SUSSEX, ENGLAND PO19 1UD
Language: English Document Type: ARTICLE
Abstract: The thermal dehydration and decomposition of Cd(BF4)(%2%) . 6H(%2%)O were studied by means of DTA, TG, DSC and X-ray diffraction methods and the end products of the thermal decomposition were identified. The results of thermal analysis show that the compound is fused first, then it is dehydrated until Cd(BF4)(%2%) . 3H(%2%)O is obtained, which has not been described in the literature so far. The enthalpy of phase transition is %Delta% H-ph.%tr%.=115.6 kJ mol(-1). Separation of the compound is difficult since it is highly hygroscopic. Then, dehydration and decomposition take place simultaneously until CdFover dot(%2%) is obtained which is proved by X-ray diffraction. On further increasing the temperature, CdF2 is oxidized to CdO and the characteristic curve assumes a linear character.

Based on TG data, kinetic analyses were carried out separately for both parts of the curve: first until formation of the trihydrate and then - until formation of CdF2. The formal kinetic parameters are as follows:

for the first phase: E*=45.3 kJ mol(-1); rate equation F=%alpha%(%2%/3); correlation coefficient 0.9858

for the second phase: E*=230.1 kJ mol(-1); rate equation F =(1-%alpha%)(%2%/3)[1-(1-%alpha%)(1/3)](-1); correlation coefficient 0.9982.

2/7/97 (Item 40 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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05404488 Genuine Article#: VW528 Number of References: 33
Title: %2% RECEPTOR INTERACTION DOMAINS IN THE COMPRESSOR, N-COR/RIP13, ARE REQUIRED FOR AN EFFICIENT INTERACTION WITH REV-ERBA-%ALPHA% AND RVR - PHYSICAL ASSOCIATION IS DEPENDENT ON THE E-REGION OF THE ORPHAN RECEPTORS
Author(s): DOWNES M; BURKE LJ; BAILEY PJ; MUSCAT GEO
Corporate Source: UNIV QUEENSLAND,CTR MOL & CELLULAR BIOL,RITCHIERES LABS,B402A/ST LUCIA/QLD 4072/AUSTRALIA/; UNIV QUEENSLAND,CTR MOL & CELLULAR BIOL,RITCHIERES LABS/ST LUCIA/QLD 4072/AUSTRALIA/
Journal: NUCLEIC ACIDS RESEARCH, 1996, V24, N22 (NOV 15), P4379-4386
ISSN: 0305-1048
Language: ENGLISH Document Type: ARTICLE
Abstract: Rev-erbA %alpha% and RVR/Rev-erb beta/BD73 are orphan steroid receptors that have no known ligands in the 'classical sense', These

'orphans' do not activate transcription, but function as dominant transcriptional silencers, The thyroid hormone receptor (%TR%) and the retinoic acid receptor (RAR) act as transcriptional silencers by binding corepressors (e.g. N-CoR/RIP13 and SMRT/TRAC-%2%) in the absence of ligands, The molecular basis of repression by orphan receptors, however, remains obscure, and it is unclear whether these corepressors mediate transcriptional silencing by Rev-erbA %alpha% and RVR, Recently, two new variants of N-CoR have been described, RIP13a and RIP13 %Delta% 1. The characterisation of these splice variants has identified a second receptor interaction domain (ID-II), in addition to the previously characterised interaction domain (ID-I), This investigation utilised the mammalian two hybrid system and transfection analysis to demonstrate that Rev-erbA %alpha% and RVR will not efficiently interact with either ID-I or ID-II separately from RIP13a or RIP13 %Delta% 1. However, they interact efficiently with a domain composed of ID-I and ID-II from RIP13a, Interestingly, the interaction of Rev-erbA %alpha% and RVR is strongest with ID-I and ID-II from RIP13 %Delta% 1. Detailed deletion analysis of the orphan receptor interaction with RIP13/N-CoR rigorously demonstrated that the physical association was critically dependent on an intact E region of Rev-erbA %alpha% and RVR, Over-expression of the corepressor interaction domains (i.e. dominant negative forms of N-CoR/RIP13) could alleviate orphan receptor-mediated repression of transactivation by GALVP16, This demonstrated that these regions could function as anti-repressors. In conclusion, these data from two independent approaches demonstrate that repression by Rev-erbA %alpha% and RVR is mediated by an interaction of ID-I and ID-II of N-CoR, RIP13a and %Delta% 1 with the putative ligand binding domain of the orphan receptors.

2/7/98 (Item 41 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2007 The Thomson Corp. All rts. reserv.

05150649 Genuine Article#: VD717 Number of References: 30
Title: HIGH-PRESSURE DIFFERENTIAL THERMAL-ANALYSIS OF DIMER LIQUID-CRYSTALS - %ALPHA%,OMEGA-BIS[(4,4'-CYANOBIPHENYLYL)OXY]ALKANES
Author(s): MAEDA Y; FURUYA H; ABE A
Corporate Source: NATL INST MAT & CHEM RES,1-1 HIGASHI/TSUKUBA/IBARAKI 305/JAPAN/; TOKYO INST TECHNOL,DEPT POLYMER CHEM,MEGURO KU/TOKYO 152//JAPAN/; TOKYO INST POLYTECH,DEPT IND CHEM/ATSUGI/KANAGAWA 24302/JAPAN/
Journal: LIQUID CRYSTALS, 1996, V21, N3 (SEP), P365-371
ISSN: 0267-8292
Language: ENGLISH Document Type: ARTICLE
Abstract: The phase behaviour of dimer liquid crystals (DLC), %alpha% ,omega-bis[(4,4'-cyanobiphenylyl)oxy]alkanes (CBA-n with n=9,10) has been studied by differential thermal analysis (DTA) over a pressure range from 0.1 to 150 MPa. Both samples exhibit crystal (Cr)<->nematic (N)<->isotropic (I) transitions under all experimental conditions. The slopes of the phase boundary curve (dp/dt)(%tr%) were determined from the P-%tr% vs. T-%tr% phase diagram, where the subscript(%tr%) designates(CrN) or (NI). Both transition temperatures T-CrN and T-NI were found to increase almost linearly as a function of pressure; CBA-9: (dp/dt)(CrN)=3.92, (dp/dt)(NI)=%2%.03; CBA-10: (dp/dt)(CrN)=3.66, (dp/dt)(NI)=%2%.17, the units being MPaK(-1). As a consequence, the nematic region defined by the interval between the CrN and NI transitions becomes broader as the applied pressure increases. While the transition enthalpies %Delta% H-CrN and the associated entropies AS(CrN) at the CrN transition decrease substantially with increasing pressure, the corresponding quantities at the NI transition remain nearly insensitive to pressure. At atmospheric pressure, the magnitude of %Delta% H-NI amounts to about 10% of %Delta% H-CrN for the given samples. The transition enthalpies and entropies were also estimated from the Clapeyron relation, the volume changes required in this expression being taken from the PVT measurements previously reported. Somewhat larger values were obtained for both %Delta% H-%tr% and %Delta% S-%tr% in the latter estimation. The odd-even character with the spacer length n was clearly observed in the aforementioned thermodynamic quantities over the entire pressure range examined.

2/7/99 (Item 42 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2007 The Thomson Corp. All rts. reserv.

05132066 Genuine Article#: VC182 Number of References: 54
Title: MOSSBAUER-SPECTROSCOPY OF SPIN-COUPLED IRON-CHROMIUM COMPLEXES - MU-HYDROXO-BIS(MU-ACETATO)-BRIDGED IRON(%2%+)-CHROMIUM(3+) AND MU-OXO-BIS(MU-ACETATO)-BRIDGED IRON(3+)-CHROMIUM(3+)
Author(s): RODRIGUEZ JH; XIA YM; DEBRUNNER PG; CHAUDHURI P; WIEGHARDT K
Corporate Source: UNIV ILLINOIS,DEPT PHYS,1110 W GREEN ST/URBANA//IL/61801; RUHR UNIV BOCHUM,LEHRSTUHL ANORGAN CHEM 1/D-4630 BOCHUM//GERMANY/
Journal: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1996, V118, N32 (AUG 14) , P7542-7550
ISSN: 0002-7863
Language: ENGLISH Document Type: ARTICLE
Abstract: We have analyzed Mossbauer spectra of a model complex of known structure with an Fe2+(S-1=%2%)-mu OH-Cr3+(S-%2%=3/%2%) center (A) and of its Fe3+(S-1=5/%2%)-mu O-Cr3+(S-%2%=3/%2%) analog (B). These mu-hydroxo and mu-oxo bridged binuclear metal centers display unusual magnetic properties as found in several diiron-oxo proteins, Our results confirm antiferromagnetic spin coupling between Fe and Cr ions which results in S-eff = 1/%2% and S-eff = 1 ground states for A and B, respectively. The isotropic exchange H-ex = JS(1) . S-%2% is weaker for the mu-hydroxo (J approximate to 21 cm(-1)) than for the mu-oxo (J approximate to 275 cm(-1)) complex. Spectra recorded at 4.%2% K, in fields of 0.22-4.7 T, have been analyzed with the effective spin Hamiltonian for the ground state H-eff = beta S-eff.(g) over tilde(eff). H + S-eff.(A) over tilde(1)(eff). I-1 + I-1 .(P) over tilde(1) . I-1 - beta(n)g(n)H . I-1. For complex B, the zero-field splitting S-eff. D-eff. S-eff is also included in R(eff). In applied fields, the 4.%2% K spectra of Fe2+ in A showed hyperfine splittings which allowed the determination of the following S-eff = 1/%2% Hamiltonian parameters: 1/3 %Tr% (g) over tilde(eff) approximate to %2% .00, (A) over tilde(1)(eff)/g(n) beta(n) = -(18.3,5.6,25.0) T, %Delta% E(Q) = +%2%.87 mm/s, eta = 0.93, and %delta%(Fe) = 1.22 mm/s. The weak coupling of A allows the zero-field splitting to mix higher spin manifolds with the ground state doublet, and, to obtain intrinsic parameters, we also calculated the spectra of Fe2+ by diagonalizing the (2S(1) + 1 = 5) x (2S(%2%) + 1 = 4) matrix of the Hamiltonian H = JS(1) . S-%2% + Sigma(i=1)(%2%){S-i .(D) over tilde(i) . S-i + beta S-i .(g) over tilde(i) . H} + S-1 .(a) over tilde(1) . I-1 +I-1 + I-1 .(P) over tilde(1) . I-1 - beta(n)g(n)H . I-1. We determined the following parameters for Fe2+: D-1 = +4.0 cm(-1), E(1) = +0.4 cm(-1), 1/3 %Tr% (g) over tilde(1) greater than or similar to %2%.07, <(%alpha%)over tilde>(1)/g(n) beta(n) = -(10.%2%,3.5,15.6) T. For complex B, we found that Fe3+ has a large quadrupole splitting (%Delta% E(Q) = -%2%.00 mm/s, eta = 0.22) presumably as a result of anisotropic covalency due to the close proximity of the bridging O2-. This large %Delta% E(Q) is comparable to values found in diiron-oxo proteins. Spectra of B in applied fields also displayed hyperfine splittings, and the following S-eff = 1 Hamiltonian parameters could be deduced: D-eff = +3.9 cm(-1), E(eff) = +1.7 cm(-1), 1/3 %Tr% (g) over tilde(eff) = %2%.01, (A) over tilde(1)(eff)/g(n) beta(n) = -(33.8,30.9,35.8) T, %delta%(Fe) = 0.52 mm/s.

2/7/100 (Item 43 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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05047049 Genuine Article#: TL812 Number of References: 19
Title: EVIDENCE OF MASSIVE CLUSTER TRANSFERS IN F-19+TH-232 REACTION AT NEAR-BARRIER ENERGIES
Author(s): BISWAS DC; CHOUDHURY RK; NADKARNI DM; RAMAMURTHY VS
Corporate Source: BHABHA ATOM RES CTR,DIV NUCL PHYS/BOMBAY 400085/MAHARASHTRA/INDIA/
Journal: PHYSICAL REVIEW C-NUCLEAR PHYSICS, 1995, V52, N6 (DEC), P R2827-R2830

ISSN: 0556-2813
Language: ENGLISH Document Type: ARTICLE
Abstract: Yields and angular distributions of the transfer reaction products have been measured in the F-19+Th-232 reaction at bombarding energies near the Coulomb barrier. The transfer probabilities were calculated (P-%tr%) from the measured differential cross sections at the grazing angle, for the most dominant channels for given (%Delta% N) transfers. The values of P-%tr% show, in general, an exponential dependence on the ground state Q value (Q(0)) of the reaction and the large cross sections observed for 1 %alpha% and %2% %alpha% transfer channels are largely accounted by the Q-value variations. However, the transfer channels of %Delta% N=5, 9, and 12 leading to C-14, Be-10, and Li-7 products, respectively, show strong enhancements in the transfer probabilities. The large cross sections in these channels may imply simultaneous correlated transfers of (%alpha% p), (%alpha% p,%alpha%), and (3 %alpha%) clusters from the F-19 projectile to the target.

2/7/101 (Item 44 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04924247 Genuine Article#: UT213 Number of References: 27
Title: CONDUCTIVITY, NMR, THERMAL MEASUREMENTS, AND PHASE-DIAGRAM OF THE K2S2O7-KHSO4 SYSTEM
Author(s): ERIKSEN KM; FEHRMANN R; HATEM G; GAUNEESCARD M; LAPINA OB; MASTIKHIN VM
Corporate Source: TECH UNIV DENMARK,DEPT CHEM A/DK-2800 LYNGBY//DENMARK/; BORESKOV INST CATALYSIS/NOVOSIBIRSK 630090//RUSSIA/; UNIV AIX MARSEILLE 1,CTR ST JEROME,INST UNIV SYST THERM IND/F-13397 MARSEILLE 20//FRANCE/
Journal: JOURNAL OF PHYSICAL CHEMISTRY, 1996, V100, N25 (JUN 20), P 10771-10778
ISSN: 0022-3654
Language: ENGLISH Document Type: ARTICLE
Abstract: The phase diagram of the catalytically important K2S2O7-KHSO4 solvent system has been investigated by means of electrochemical, thermal, and spectroscopic methods. The phase diagram exhibits a eutectic at X(KHSO4) = 0.94(1) with a temperature of fusion of 205 degrees C. No compound is formed in the system, but the strong %alpha% --> beta solid-solid transition of K2S2O7, found at 318 degrees C with %Delta% H-%tr% = 21.8 kJ/mol, gives rise to a marked change in the slope of the liquidus curve at this temperature. The experimental phase diagram is in very good accordance with a calculated diagram based on the assumption of an ideal liquid mixture. K-39, H-1, O-17, and S-33 NMR measurements on the molten K2S2O7-KHSO4 mixtures up to 540 degrees C show that a fast ionic exchange takes place in the melt at all compositions. The conductivities of the solid and molten K2S2O7-KHSO4 systems were measured at 13 different compositions in the whole composition range, X(KHSO4) = 0-1 For each composition in the temperature range examined, the conductivity of the molten mixtures has been expressed by equations of the form kappa = A(X) + B(X)(T - 600) + C(X)(T - 600)(%2%). The measurements indicate an enhanced molar conductivity of the binary system, probably due to delocalization of the conducting ions compared to the pure molten components.

2/7/102 (Item 45 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04753819 Genuine Article#: UF063 Number of References: 55
Title: INPLANE AND OUT-OF-PLANE MAGNETORESISTANCE IN LA2-XSRXCUO4 SINGLE-CRYSTALS
Author(s): KIMURA T; MIYASAKA S; TAKAGI H; TAMASAKU K; EISAKI H; UCHIDA S; KITAZAWA K; HIROI M; SERA M; KOBAYASHI N
Corporate Source: UNIV TOKYO,INST SOLID STATE PHYS,MINATO KU,ROPPONGI 7-22-1/TOKYO 106//JAPAN/; UNIV TOKYO,DEPT APPL PHYS,BUNKYO KU/TOKYO 113//JAPAN/; UNIV TOKYO,DEPT APPL CHEM,BUNKYO KU/TOKYO 113//JAPAN/; TOHOKU UNIV,INST MAT RES,AOBA KU/SENDAI/MIYAGI 980/JAPAN/
Journal: PHYSICAL REVIEW B-CONDENSED MATTER, 1996, V53, N13 (APR 1), P 8733-8742
ISSN: 0163-1829
Language: ENGLISH Document Type: ARTICLE
Abstract: The magnetoresistance of La2-xSrxCuO4 single crystals has been studied extensively over a wide composition range (0.07 less than or equal to x less than or equal to 0.28) using current parallel (in plane) and perpendicular (out of plane) to the CuO2 plane. In the underdoped superconducting phase (x similar to 0.10), the in-plane magnetoconductivity above T-c is well described as fluctuation conductivity but only with the Aslamasov-Larkin term. The negligibly small Maki-Thompson contribution is suggestive of anisotropic Cooper pairing. We find a pronounced negative and isotropic out-of-plane magnetoresistance at low temperatures in this composition range. In the optimally doped to the overdoped superconducting phases (0.15 less than or equal to x less than or equal to 0.20), a substantial normal-state component is observed in the in-plane magnetoresistance. The classical Kohler's rule appears to break down for the normal-state magnetoresistance, which supports the involvement of two distinct scattering rates tau(%tr%) and tau(H). In the out-of-plane magnetoresistance; we find an unconventional scaling %Delta% rho(c)/rho(c) proportional to(H/rho %alpha%)(%2%) for H perpendicular to J and (H/T)(%2%) for H parallel to J. In contrast to these anomalous behaviors, we find that Kohler's rule holds for both the in-plane and the out-of-plane transverse magnetoresistance in the overdoped normal metal region, implying a conventional anisotropic three-dimensional transport. These findings provide further evidence for the unconventional normal-state transport in the samples which exhibit high-T-c superconductivity.

2/7/103 (Item 46 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04567222 Genuine Article#: TU640 Number of References: 34
Title: DOMINANT-NEGATIVE MUTANT THYROID-HORMONE RECEPTORS PREVENT TRANSCRIPTION FROM XENOPUS THYROID-HORMONE RECEPTOR-BETA GENE PROMOTER
IN RESPONSE TO THYROID-HORMONE IN XENOPUS TADPOLES IN-VIVO
Author(s): ULISSE S; ESSLEMONT G; BAKER BS; CHATTERJEE VKK; TATA JR
Corporate Source: NATL INST MED RES,DIV DEV BIOCHEM,MILL HILL/LONDON NW7 1AA//ENGLAND/; NATL INST MED RES,DIV DEV BIOCHEM/LONDON NW7 1AA//ENGLAND/; UNIV CAMBRIDGE,ADDENBROOKES HOSP,DEPT MED/CAMBRIDGE CB2 2QQ//ENGLAND/
Journal: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 1996, V93, N3 (FEB 6), P1205-1209
ISSN: 0027-8424
Language: ENGLISH Document Type: ARTICLE
Abstract: We describe a dominant-negative approach in vivo to assess the strong, early upregulation of thyroid hormone receptor beta (%TR% beta) gene in response to thyroid hormone, characteristic of the onset of natural and thyroid hormone-induced amphibian metamorphosis, 3,3',5-Triiodothyronine (T-3) treatment of organ cultures of premetamorphic Xenopus tadpole tails coinjected in vivo with the wild-type Xenopus %TR% beta (wt-xTR beta) and three different thyroid responsive element chloramphenicol acetyltransferase (TRE-CAT) reporter constructs, including a direct repeat +4 (DR +4) element in the -200/+87 fragment of the xTR beta promoter, resulted in a 4- to 8-fold enhancement of CAT activity, Two human C-terminal %TR% beta 1 mutants (%Delta%-hTR beta 1 and fs-hTR beta 1), an artificial Xenopus C-terminal deletion mutant (mt-xTR beta), and the oncogenic viral homolog v-erbA none of which binds T-3, inhibited this T-3 response of the endogenous wt-xTR in Xenopus XTC-%2% cells cotransfected with the -1600/+87 xTR beta promoter-CAT construct, the potency of the dominant-negative effect of these mutant TRs being a function of the strength of their heterodimerization with Xenopus retinoid X receptor gamma, Coinjection of the dominant-negative Xenopus and human mutant %TR% beta s into Xenopus tadpole tails totally abolished the T-3 responsiveness of the wt-xTR beta with different TREs, including the natural DR +4 TRE of the xTR beta promoter.

2/7/104 (Item 47 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04553509 Genuine Article#: TR826 Number of References: 38
Title: UNDERSTANDING THE MOLECULAR MECHANISM OF DOMINANT-NEGATIVE ACTION OF MUTANT THYROID-HORMONE BETA(1)-RECEPTORS - THE IMPORTANT ROLE OF THE WILD-TYPE-MUTANT RECEPTOR HETERODIMER
Author(s): ZHU XG; YU CL; MCPHIE P; WONG R; CHENG SY
Corporate Source: BLDG 37,ROOM 2D24,37 CONVENT DR,MSC 4255/BETHESDA//MD/20892; NCI,DIV CANC BIOL DIAG & CTR,MOLEC BIOL LAB/BETHESDA//MD/20892; NIDDKD,BIOCHEM PHARMACOL LAB/BETHESDA//MD/20892; NIDDKD,MOLEC & CELLULAR ENDOCRINOL BRANCH/BETHESDA//MD/20892
Journal: ENDOCRINOLOGY, 1996, V137, N2 (FEB), P712-721
ISSN: 0013-7227
Language: ENGLISH Document Type: ARTICLE
Abstract: The clinical manifestations of patients with resistance to thyroid hormone result from inhibition of the functions of wild-type thyroid hormone receptors (wTRs) by the dominant negative effect of mutant %TR% beta 1 receptors (mTR beta 1). One of the proposed mechanisms by which mTR beta 1 exerts its dominant negative action is via formation of the putative inactive wTR beta 1/mTR beta 1 heterodimer. However, the nature of the wTR beta 1/mTR beta 1 heterodimer is poorly understood. The present study characterizes the wTR beta 1/mTR beta 1 heterodimer by electrophoretic mobility shift assay. The mutant %TR% beta 1 used was PV, which contains a frame shift mutation in the C-terminal part of %TR% beta 1 and has less than 1% of the T-3 binding affinity of the wTR beta 1. Because of the difficulty in resolving wTR beta 1 and mutant PV dimers, we used a truncated wTR beta 1 in which the A/B domain was deleted (%Delta% %TR% beta 1) to demonstrate the formation of the heterodimer on thyroid hormone response elements (TREs) in which the half-site binding motifs are oriented in an inverted repeat (F2), a direct repeat separated by four nucleotides (DR4), or an inverted repeat (Pal). Deletion of the A/B domain had no effect on the binding of T-3 and TREs to wTR beta 1. In the presence of equal amounts of %Delta% %TR% beta 1 and PV, three types of molecular complexes, %Delta% %TR% beta 1 homodimer, %Delta% %TR% beta 1/PV heterodimer, and PV homodimer bound to each TRE in a ratio of approximately 1:%2%:1. The identities of these complexes were confirmed by their ability to be supershifted by anti-%TR% beta 1 and/or anti-PV antibodies. %Delta% %TR% beta 1/PV heterodimer formation varied with different TREs. The ratio of apparent affinity constant (K-a) in the binding of %Delta% %TR% beta 1/PV to TREs was F2:DR4:Pal = approximately 6:%2%:1. The effect of T-3 on %Delta% %TR% beta 1/PV heterodimer formation was TRE dependent. No T-3-induced dissociation was observed for the %Delta% %TR% beta 1/PV heterodimer when bound to F2 and Pal. In contrast, the %Delta% %TR% beta 1/PV heterodimer bound to DR4 was dissociated by T-3 with an ED(50) of 3.9 +/- 0.9 nM. The T-3-induced dissociation of %Delta% %TR% beta 1 homodimer bound to F2, DR4, and Pal had ED(50) values of 4.1 +/- 1.%2%, 1.3 +/- 0.3, and more than 100 nM, respectively. By transfection assays, the dominant negative action of PV was found to be TRE dependent with the rank order of F2 much greater than Pal > ME (a DR4-like TRE in the rat malic enzyme gene). Taken together, these results indicate a strong correlation between wTR beta 1/mTR beta 1 heterodimer formation and the dominant negative potency of PV. These results suggest that the wTR beta 1/mTR beta 1 het erodimer could play an important role in the dominant negative action of mTR beta 1.

2/7/105 (Item 48 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04016526 Genuine Article#: QZ713 Number of References: 43
Title: TIME-RESOLVED ABSORPTION, INFRARED, AND RESONANCE RAMAN-SPECTRA OF THE COMPLEXES [RU(X)(R)(CO)(%2%)(%ALPHA%-DIIMINE)] (X=HALIDE R=ALKYL) - INFLUENCE OF X ON THE CHARGE-TRANSFER CHARACTER OF THE LOWEST EXCITED-STATE
Author(s): NIEUWENHUIS HA; STUFKENS DJ; MCNICHOLL RA; ALOBAIDI AHR; COATES CG; BELL SEJ; MCGARVEY JJ; WESTWELL J; GEORGE MW; TURNER JJ
Corporate Source: UNIV AMSTERDAM,JH VAN THOFF RES INST,ANORGAN CHEM LAB,NIEUWE ACHTERGRACHT 166/1018 WV AMSTERDAM//NETHERLANDS/; UNIV AMSTERDAM,JH VAN THOFF RES INST,ANORGAN CHEM LAB/1018 WV AMSTERDAM//NETHERLANDS/; QUEENS UNIV BELFAST,SCH CHEM/BELFAST BT9 5AG/ANTRIM/NORTH IRELAND/; UNIV NOTTINGHAM,DEPT CHEM/NOTTINGHAM NG7 2RD//ENGLAND/
Journal: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1995, V117, N20 (MAY 24), P5579-5585
ISSN: 0002-7863
Language: ENGLISH Document Type: ARTICLE
Abstract: Nanosecond time-resolved absorption (TA), resonance Raman (%TR% (3)), and infrared (TRIR) spectra are reported for several complexes [Ru(X)(R)(CO)(%2%)(%alpha%-diimine)] (X = Cl, Br, I; R = Me, Et; %alpha%-diimine = N,N'-diisopropyl-1,4-diaza-1,3-butadiene (iPr-DAB), pyridine-%2%-carbaldehyde-N-isopropylimine (iPr-PyCa), %2%,%2% '-bipyridine (bpy)). This is the first instance in which the TA, %TR% (3), and TRIR techniques have been used to probe excited states in the same series of complexes. The TA spectra of the iodide complexes show a transient absorption between 550 and 700 nm, which does not depend on the solvent but shifts to lower energy in the order iPr-DAB > bpy > iPr-PyCa. This band is assigned to an intraligand transition. For the corresponding chloride and bromide complexes this band occurs at higher energy, most probably because of a change of character of the lowest excited state from XLCT to MLCT. The TRIR spectra show an increase in v(CO) (and k(CO)) on promotion to the excited state; however, the shifts %Delta% v(CO) show a decrease in the order Cl- > Br- > I-. The %TR%(3) spectra of the excited complexes [Ru(X)(R)(Co)(%2%)(iPr-DAB)] show v(s)(CN) of the iPr-DAB ligand 50-80 cm(-1) lower in frequency than for the complexes in their ground state. This frequency shift decreases in the order Cl- > Br- > I-, indicating a decrease of CT character of the lowest excited state in this order. However, going from X = Br to I, the effect on %Delta% v(CO) is much larger than the decrease of %Delta% v(s)(CN). This different effect on the CO- and CN-stretching frequencies is assigned to a gradual change in character of the lowest excited state from MLCT to XLCT when Cl- is replaced by Br- and I-. This result confirms a similar conclusion derived from previous resonance Raman and emission experiments on these complexes.

2/7/106 (Item 49 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

03726754 Genuine Article#: QA750 Number of References: 42
Title: CALCULATION OF THE CONFORMATION ENTROPIES OF DIMER LIQUID-CRYSTALS AND COMPARISON WITH THE OBSERVED TRANSITION ENTROPIES AT CONSTANT VOLUME
Author(s): ABE A; FURUYA H; SHIMIZU RN; NAM SY
Corporate Source: TOKYO INST TECHNOL,DEPT POLYMER CHEM,MEGURO KU/TOKYO 152//JAPAN/
Journal: MACROMOLECULES, 1995, V28, N1 (JAN 2), P96-103
ISSN: 0024-9297
Language: ENGLISH Document Type: ARTICLE
Abstract: RIS analysis of the deuterium quadrupolar splitting data was performed for %alpha%,omega-bis[(4,4'-cyanobiphenylyl)oxy]alkane dimer liquid crystals having -O(CH2)(n)O- flexible spacers (n = 9 (CBA-9) and n = 10 (CBA-10)) between the 4,4'-cyanobiphenylyl ends according to the scheme previously established. The analysis indicates that most of the conformers involved in the range 0 < psi(1),psi(%2%) < 45 degrees adopt spatial configurations reasonably consistent with the nematic arrangement of mesogenic cores in both dimer LC systems, where psi(1), and psi(%2%) denote the inclination angles of the terminal mesogenic cores with respect to the molecular axis. The conformational entropy changes at the crystal-nematic (CN) and nematic-isotropic (NI) interphases estimated on this basis are as follows: CBA-9, %Delta% S-en(conf) = 59.6, %Delta% S-ni(conf) = 13.3; CBA-10, %Delta% S-ni(conf) = 64.%2%, %Delta% S-ni(conf) = 15.6 (J mol(-1) K-1 units).

The values of the entropies %Delta% S-%tr%(conf) thus derived were compared with the constant-volume transition entropies (%Delta% S-%tr%)(v) determined by the PVT measurements reported in the accompanying paper: CBA-9, (%Delta% S-cn)(v) = 53.9, (%Delta% S-ni)(v) = 7.9; CBA-10, (%Delta% S-cn)(v) = 62.4, (%Delta% S-ni)(v)) = 13.3 (J mol(-1) K-1 units). In view of the uncertainties involved in the estimation of the entropies both in theory and in experiments, the correspondence is quite favorable. The conformation of the spacer undoubtedly plays an important role in determining the phase behaviors of these main chain liquid crystals. It is pointed out that the discrepancy between the calculation and experiment may be further improved by considering other contributions such as (1) the entropy changes due to the orientation of the anisotropic molecules in the liquid crystalline state and (%2%) the possibility of the entropy loss during the compression to achieve constant-volume transitions. It is concluded that the observed increase in the quadrupolar and dipolar splittings with decreasing temperature arises mainly from the variation of the order parameter of the molecular axis.

2/7/107 (Item 50 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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03017263 Genuine Article#: MW965 Number of References: 17
Title: THE PHENOMENON OF CONGLOMERATE CRYSTALLIZATION .35. THE CRYSTAL AND MOLECULAR-STRUCTURE OF RACEMIC [CIS-%ALPHA% -DINITRO(1,8-DIAMINO-3,6-DITHIAOCTANE)COBALT(III)]CL (I) AND THE ABSOLUTE-CONFIGURATION OF (+)(546)-LAMBDA(%DELTA%-LAMBDA-%DELTA%)[CIS-%ALPHA%-DINITRO(1,8-DIAMINO-3,6-DITHIAOCTANE)COBALT(III)]CLO4(II)
Author(s): BERNAL I; CETRULLO J; WORRELL JH; LI T
Corporate Source: UNIV HOUSTON,DEPT CHEM/HOUSTON//TX/77204; UNIV S FLORIDA,DEPT CHEM/TAMPA//FL/33620
Journal: POLYHEDRON, 1994, V13, N3 (FEB), P463-468
ISSN: 0277-5387
Language: ENGLISH Document Type: ARTICLE
Abstract: Compound I crystallizes as a racemate, as suggested earlier.(3,5,14) Crystals of II were prepared from externally resolved material. In both, the organic ligand is quadridentate with two %tr% ans-axial nitrogen and two cis sulphur donor atoms located trans to the two basal -NO2 ligands. Likewise, in both, the counter-anion is hydrogen bonded to the terminal -NH2 hydrogens and the cations are in the cis-%alpha% configuration, with those of the former having Lambda(%delta% lambda %delta%) and %Delta%(%delta% lambda %delta%) pairs related by the inversion centre; those of the (+)(546) enantiomer of II are Lambda(%delta% lambda %delta%). These results fix the absolute configuration of II and establish the fact that the synthetic procedure for the preparation of the precursors of this compound, [Co(C6H16N2S2)(XY)]A (X = Y = NO2-;X = Y = Cl;X = Cl, Y = H2O, etc. and A = an anion), contain exclusively racemic Lambda(%delta% lambda %delta%) and %Delta%(%delta% lambda %delta%) pairs and no cis-beta or trans isomers. Packing in the case of I consists of infinite strings of chloride-linked cations which are formed such that a given string contains [-Co(1)-Cl(1)-Co(1)-Cl(1)-](n) and of another string of.[-Co(%2%)-Cl(%2%)-Co(%2%)-Cl(%2%)-]n, and each chloride has three hydrogen bonds, two intra-string and a third linking adjacent strings. All Co(1) cations within the string defined by the current coordinates are Lambda(%delta% lambda %delta%; torsional angles = 42.3, -33.9 and 48.3 degrees) and all Co(%2%) cations within the string defined by the current coordinates are %Delta%(%delta% lambda %delta%; torsional angles = -27.1, 39.8 and -42.1 degrees). Given the space group and the contents of the cell, it is clear that enantiomorphic pairs of infinite strings are present in the crystals. Crystals of enantiomorphic II were studied in order to show the relationship between the CD spectrum and the absolute configuration of the cation.

2/7/108 (Item 51 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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02985042 Genuine Article#: MT491 Number of References: 21
Title: THERMAL AND DIFFRACTION STUDIES OF PHASE-TRANSITIONS IN THE INCOMMENSURATE COMPOUND [P(CH3)(4)]2CUCL4
Author(s): BEDNARZ G; WHITE MA; PRESSPRICH MR; WILLETT RD
Corporate Source: DALHOUSIE UNIV,DEPT CHEM/HALIFAX B3H 4J3/NS/CANADA/; DALHOUSIE UNIV,DEPT CHEM/HALIFAX B3H 4J3/NS/CANADA/; WASHINGTON STATE UNIV,DEPT CHEM/PULLMAN//WA/99164
Journal: PHYSICAL REVIEW B-CONDENSED MATTER, 1994, V49, N2 (JAN 1), P 832-837
ISSN: 0163-1829
Language: ENGLISH Document Type: ARTICLE
Abstract: Calorimetric and x-ray-diffraction studies of the commensurate (C)-incommensurate (IC) and incommensurate (IC)-normal (N) phase transitions in [P(CH3)(4)]2CuCl4, are reported. The C-IC transition at T = 346.20+/-0.25 K is shown to be first order with a value of Delta(tr)S = 3.70+/-0.09 JK(-1) mol(-1). The IC-N transition at T = 381.23+/-0.25 K appears to be second order with Delta(tr)S = 5.40+/-0.10 JK(-1) mol(-1). The orders of the transitions are based on the calorimetric data and the lattice parameters; the latter show a discontinuity at the C-IC transition but only show a discontinuity in slope at the IC-N transition. An additional anomaly, of unknown origin, is observed in the heat-capacity data following particular thermal histories, but it is not observed by diffraction studies. Critical-point analysis of the intensity of the satellite diffraction peaks within about 6 K of the IC-N transition leads to the estimate that 2 beta=0.54. Similar analysis of the thermal data within 1 K of the transition shows that alpha' depends on the temperature range of the fit and %alpha%' <0.04. The temperature dependence of the effective values of the critical exponents, especially %alpha%', and the discrepancies between observed %alpha%' and beta values with predictions for a three-dimensional XY model show that data closer to T-c are required to carry out more complete critical-behavior analysis in this system.

2/7/109 (Item 52 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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02767137 Genuine Article#: MC206 Number of References: 6
Title: ABSOLUTE PROPER MOTIONS OF THE OPEN CLUSTERS M-39 AND %TR%-37
Author(s): GLUSHKOVA EV; MELNIK AM
Corporate Source: PK SHTERNBERG STATE ASTRON INST/MOSCOW//RUSSIA/
Journal: ASTRONOMY LETTERS-A JOURNAL OF ASTRONOMY AND SPACE ASTROPHYSICS, 1993, V19, N2 (MAR-APR), P113-115
ISSN: 1063-7737
Language: ENGLISH Document Type: ARTICLE
Abstract: We have determined the absolute proper motions of five stars from the BD catalog in the vicinity of the open cluster M 39 and 20 stars in the vicinity of the cluster %Tr% 37 to within 0.26"/100 yr. The measured absolute proper motion of M 39 is 15mu(%alpha%) cos %delta% =(-0.81"+/-0.14")/100 yr and mu(%delta%)=(-%2%.28"+/-0.13")/100 yr and that of %Tr% 37 is 15mu(%alpha%) cos %delta%=(-1.04"+/-0.12)/100 yr and mu(%delta%)=(-0.50"+/-0.11")/100 yr.

2/7/110 (Item 53 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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02631311 Genuine Article#: LR762 Number of References: 56
Title: HOW RELEVANT IS THE ELECTRON-PHONON COUPLING IN HIGH-T(C) SUPERCONDUCTORS
Author(s): ZEYHER R
Corporate Source: MAX PLANCK INST FESTKORPERFORSCH/W-7000 STUTTGART 80//GERMANY/
Journal: FESTKORPERPROBLEME-ADVANCES IN SOLID STATE PHYICS, 1991, V31, P 19-37
ISSN: 0430-3393

Language: ENGLISH Document Type: ARTICLE
Abstract: A brief survey over the experimental and theoretical status concerning the strength of the electron-phonon coupling in high-T(c) oxides is given. We then discuss calculations of the Eliashberg function alpha2F(omega) and the related transport function %alpha%(%tr%)2F(omega) for YBa2Cu3O7 based on a screened ionic model (rigidly shifted ionic potentials which are screened by a background dielectric constant epsilon(infinity) and by two-dimensional charge carriers within the RPA). Using these functions results for superconductivity-induced changes in several lattice properties (k = 0 and k not-equal 0 phonons, Debye-Waller factor and kinetic energy of an ion) and the temperature dependence of the resistivity are discussed and compared with other calculations and experimental data.

2/7/111 (Item 54 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

01649307 Genuine Article#: HN792 Number of References: 0
(NO REFS KEYED)
Title: MATHEMATICAL-MODELING OF DAILY COURSE OF AIR-TEMPERATURE
Author(s): MLADICOVA I; NATR L
Corporate Source: CHARLES UNIV,FAC NAT SCI/CS-12844 PRAGUE 2//CZECHOSLOVAKIA/
Journal: ROSTLINNA VYROBA, 1991, V37, N11, P911-918
Language: CZECH Document Type: ARTICLE
Abstract: For mathematical modelling of plant growth, it appears to be more and more important to simulate apply the daily course of temperatures as most of meteorological services are provided only by certain methods of measuring the daily averages, minimum and maximum temperatures. An applicability of three mathematical functions which were undergone to examinations by W a n n et al. (1985) in conditions of the North America, are evaluated in this paper, that is: sine-exponential: if tn less-than-or-equal-to ts, then T(t) = Tn + (Tx - Tn) sin {pi(t - %tr% - beta)/[l + %2%(%alpha% - beta] if ts less-than-or-equal-to tn', then T(t) = T'n + [T(ts) - T'n] exp [-%delta%(t - ts)/(24 - l (+ beta)] sinusoidal: if tn less-than-or-equal-to tx, then T(t) = 1/%2%(Tx + Tn) - 1/%2%(Tx - Tn) cos [pi(t - %tr% - beta)/(1/2l + %alpha% - beta)] if tx less-than-or-equal-to tn', then T(t) = 1/%2%(Tx + Tn') + 1/%2%(Tx - Tn') cos {pi[t-1/%2%(%tr% + ts) -%alpha%](24-1/%2% l - %alpha% + beta) modified sinusoidal: if tn less-than-or-equal-to tx, then T(t) = Tn + (Tx - Tn) sin {pi(t - %tr% - beta)/[l + %2%(%alpha% - beta)]} if tx less-than-or-equal-to tn', then see sinusoidal model. Symbols in given relationships:

T(t) - temperature in t time, Tn - lowest daily temperature, Tx - highest daily temeperature, Tn' - lowest daily temperature next day, %tr% - time of sunrise, ts - time of sunset, tn - time of reaching Tn, tx - time of reaching Tx, tn' - - time of reaching Tn', %alpha%, beta, %delta% - parameters: %alpha% = tx - 12 - time interval between noon and time of reaching the maximum temperature, beta = tn - %tr% - time interval between time of reaching the maximum temperature and time of sunrise, %delta% - - parameter of rate of temperature change from T(ts) to T(tn'), l - length of day. Length of day is calculated after W e i r et al. (1984).

The data read from thermograph for each even hour and at 7 and 21 o'clock in addition, that is 12 values for each 24 hours, and for the period of four hours, were used as input data. It was more suitable to derive the parameters through the calculation of the daily course of monthly average temperatures than from average daily temperatures. The course of temperatures is simulated the best by sine-exponential model of three given models. The sinusoidal function is used for the interval from reaching the maximum temperature to sunset, and an exponential function in use for the remaining parts of the day. The number and distribution of days complying the prerequisites of mathematical models are significantly influenced by the time of recording the temperature extremes (Fig. 1). Reading of daily temperature extremes at 21 o'clock was more suitable for correctness of the parameters derived than reading at 24 o'clock.

In June to August (growing season of most plants) the regular temperature course is kept on an average in 72% days. Thus, a prerequisition of the models is fulfilled: an occurrence of daily minimum early in the morning and maximum in time from sunrise to sunset; simulated and actual course are almost identical. An accordance was also in days with very low amplitude (daily temperature range: minimum to maximum).

In days daily minimum of which was at midnight (the weather became much colder overnight), the simulated course did not fall in with actual course from the very early morning to 10 o'clock a.m. (Fig. 2d). Daily average values of simulated courses were lower compared with average for actual courses (on an average by 0.5-degrees-C), the deviation depended on the amplitude value. The days when at midnight was the daily maximum (that is, it got warmer during night), the simulated pattern was markedly different from an actual one between sunrise and sunset (Fig. 2e). The values of daily averages of simulated courses were higher compared with reality (by 0.6-degrees-C on an average), the deviation was dependent again on temperature amplitude. As far as the temperature minimum was early or later in comparison with average monthly values, the simulated course was shifted by this delay or acceleration, but the shift did not affect the daily average (Fig. 2f).

The values of parameters calculated for different days exhibited a high variability, though only the days complying the needs of mathematical models were taken into account. The %alpha% parameters ranged in interval (1.4 to 3.7), beta (0.23 to 3.3) and %delta% (0.6 to 3.9).

The possibilities using the given results are as follows: 1. Using the model together with parameters given in Tab. I for the 1st approximation when the parameters proper are derived for the given site and for the given time or in cases when perfect accordance of simulated and actual values is not necessary. %2%. Derivation other models describing the daily course of temperature on the days when temperature extremes do not correspond to prerequisites, or to uses of other data of weather services.

2/7/112 (Item 55 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

01194967 Genuine Article#: GD306 Number of References: 92
Title: ELECTROABSORPTION (STARK-EFFECT) SPECTROSCOPY OF MONORUTHENIUM AND BIRUTHENIUM CHARGE-TRANSFER COMPLEXES - MEASUREMENTS OF CHANGES IN DIPOLE-MOMENTS AND OTHER ELECTROOPTIC PROPERTIES
Author(s): OH DH; SANO M; BOXER SG
Corporate Source: STANFORD UNIV,DEPT CHEM/STANFORD//CA/94305; STANFORD UNIV,DEPT CHEM/STANFORD//CA/94305
Journal: JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1991, V113, N18, P 6880-6890
Language: ENGLISH Document Type: ARTICLE
Abstract: Electroabsorption (Stark effect) spectra are reported for the charge-transfer transitions of (NH3)5RuL2+ and [(NH3)5Ru]2L4+,5+, where L is pyrazine (pz) or 4,4'-bipyridine (4,4'-bpy). The spectra permit experimental estimates of the susceptibility of the transition dipole moment to an electric field, the change in polarizability (%Tr%-%DELTA% -%alpha%), and the magnitude of the change in permanent electric dipole moment (\%DELTA%-mu\) associated with many of the metal-to-ligand and metal-to-metal charge-transfer (MLCT and MMCT, respectively) transitions in these complexes. The observed electroabsorption spectra of the MLCT transitions of the monoruthenium complexes are interpreted as arising predominantly from %DELTA%-%alpha% and %DELTA%-mu. When L = pz and 4,4'-bpy, the observed values of \%DELTA%-mu\are (5.3 +/- 0.8)/f and (15.8 +/- 0.%2%)/f D, respectively, compared with the values of 16.5 and 27.1 D expected for full charge transfer from the metal to

the geometric center of the ligand (f is a local electric field correction). Protonation of the monoruthenium complexes has relatively small effects on the observed %DELTA%-%alpha% and %DELTA%-mu when L = 4,4'-bpy, but when L = pz, %DELTA%-%alpha% appears to change its sign while %DELTA%-mu virtually disappears. A simple electrostatic model qualitatively accounts for the results and indicates that pyrazine allows a much greater degree of delocalization from the ruthenium than 4,4'-bipyridine whose pyridyl rings are probably not coplanar. The electroabsorption spectra of the MLCT region of the biruthenium complexes are very complicated and not quantitatively interpretable on the basis of current information, though interesting and qualitatively suggestive features appear. For the MMCT transitions in the biruthenium mixed-valence complexes where L is pz and 4,4'-bpy, the observed values of \%DELTA%-mu\are (0.7 +/- 0.1)/f and (28.5 +/- 1.5)/f D, respectively, compared with the values of 32.7 and 54.3 D expected for charge transfer in fully localized complexes. These latter results demonstrate that electronic delocalization between the two metals is essentially complete when the bridging ligand is pyrazine, whereas it is significant but incomplete when the bridge is 4,4'-bipyridine. In all complexes, the angle dependence of the electroabsorption demonstrates that %DELTA%-mu and the other field-interactive molecular properties are parallel to the transition dipole moment, as expected if the transition moment lies along the metal-ligand axis. The electroabsorption spectra of all of the monoruthenium and [(NH3)5Ru]2L4+ complexes also show evidence for transitions that are weak or obscured in conventional absorption spectra; possible assignments are discussed within the context of a molecular orbital model.

2/7/113 (Item 1 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01245138 1999223733
Loss of tocopherols and formation of degradation compounds in triacylglycerol model systems heated at high temperature
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ADDRESS: C. Dobarganes, Instituto de la Grasa (CSIC), Avda Padre Garcia Tejero 4, E-41012 Sevilla, Spain
Journal: Journal of the Science of Food and Agriculture, 79/13 (1923-1928) , 1999, United Kingdom
CODEN: JSFAA
ISSN: 0022-5142
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 26

Triolein, trilinolein and a mixture of both (1:1) were heated at 180degreeC for %2%, 4, 6, 8 and 10 h in the absence of tocopherols or in the presence of %alpha%-tocopherol (500 mg kgsup -sup 1), %delta%-tocopherol (500 mg kgsup -sup 1) or a mixture of %alpha%-, beta-, gamma- and %delta% -tocopherol (200-250 mg kgsup -sup 1 each). Losses of tocopherols as well as increases in polymeric triacylglycerols were followed. Total polar compounds were also evaluated after 10 h heating. Results demonstrated that the antipolymerisation effect of tocopherols at high temperature depended on the degree of unsaturation affecting to a greater extent the less unsaturated substrate, triolein. The maximum effect for the three substrates was found when the tocopherol mixture was added. Interestingly, %alpha%-tocopherol losses were very rapid and independent of the unsaturation of the triacylglycerol system under the conditions used, although degradation of the substrate was significantly higher as the degree of unsaturation increased for any period of heating.

2/7/114 (Item 2 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00309437 95129235
New retinoid X receptor subtypes in zebra fish (Danio rerio) differentially modulate transcription and do not bind 9-cis retinoic acid
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ADDRESS: M. Petkovich, Cancer Research Laboratories, Department of Biochemistry, Queen's University, Kingston, Ont. K7L 3N6, Canada
Journal: Molecular and Cellular Biology, 15/10 (5226-5234), 1995, United States
PUBLICATION DATE: 19950000
CODEN: MCEBD
ISSN: 0270-7306
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English

Retinoid X receptors (RXRs), along with retinoic acid (RA) receptors (RARs), mediate the effects of RA on gene expression. Three subtypes of RXRs (%alpha%, beta, and gamma) which bind to and are activated by the 9-cis stereoisomer of RA have been characterized. They activate gene transcription by binding to specific sites on DNA as homodimers or as heterodimers with RARs and other related nuclear receptors, including the vitamin D receptor, thyroid hormone receptors (TRs), and peroxisome proliferator-activated receptors. Two additional RXR subtypes (%delta% and epsilon) isolated from zebra fish cDNA libraries are described here; although both subtypes form DNA-binding heterodimers with RARs and %TR%, neither binds 9-cis RA, and both are transcriptionally inactive on RXR response elements. In cotransfection studies with %TR%, the %delta% subtype was found to function in a dominant negative manner, while the epsilon subtype had a slight stimulatory effect on thyroid hormone (T3)dependent transcriptional activity. The discovery of these two novel receptors in zebra fish expands the functional repertoire of RXRs to include ligand-independent and dominant negative modulation of type II receptor function.

2/7/115 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

13627735 EMBASE No: 2006112449
A novel estrogen receptor-related protein gamma splice variant lacking a DNA binding domain exon modulates transcriptional activity of a moderate range of nuclear receptors
Kojo H.; Tajima K.; Fukagawa M.; Isogai T.; Nishimura S.
H. Kojo, Biomarker Science Co. Ltd., 2-8 Honmachibashi, Chuo-ku, Osaka 540-0029 Japan
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Journal of Steroid Biochemistry and Molecular Biology (J. STEROID BIOCHEM. MOL. BIOL.) (United Kingdom) 2006, 98/4-5 (181-192)
CODEN: JSBBE ISSN: 0960-0760
PUBLISHER ITEM IDENTIFIER: S0960076006000161
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 44

A novel estrogen receptor-related protein (ERR) gamma splice variant cDNA (ERRgamma3) was found in human full-length cDNA libraries. ERRgamma3 cDNA consists of 3362 base pairs and has an open reading frame of 1188 bp. The predicted peptide sequence of ERRgamma3 differs from both ERRgamma1 and ERRgamma2 in missing 39 amino acid residues corresponding to the second zinc finger motif of the DNA binding domain (DBD). ERRgamma3 gene consists of 8 exons including three unique 5prime-terminal exons and lacks the exon encoding the second zinc finger motif. The expression of ERRgamma3 was confined to adipocytes and prostate while that of ERRgamma2 was fairly widespread. The ERRgamma3 product was shown by transactivation assay to have no ability to activate ERE-controlled transcription. However, ERRgamma3 has an ability to modulate the transcriptional activity of other nuclear hormone receptors. ERRgamma3 augmented the ligand-dependent transcriptional activities of ER (estrogen receptor) %alpha%, ERbeta, and thyroid receptor (%TR%) %alpha% by 1.3-, 4-, and %2%.1-fold whereas it inhibited fully the activity of glucocorticoid receptor (GR). However,

ERRgamma3 had no effect on Vitamin D3 receptor, retinoic acid receptor %alpha% or peroxisome proliferator activated receptor %alpha%, beta, and gamma. These findings will help to elucidate the physiological role of the ERRgamma subfamily. (c) 2006 Elsevier Ltd. All rights reserved.

2/7/116 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
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13462473 EMBASE No: 2005531469
Endogenous opiates and behavior: 2004
Bodnar R.J.; Klein G.E.
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Peptides (PEPTIDES) (United States) 2005, 26/12 (2629-2711)
CODEN: PEPTD ISSN: 0196-9781
PUBLISHER ITEM IDENTIFIER: S0196978105003050
DOCUMENT TYPE: Journal ; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 1298

This paper is the 27th consecutive installment of the annual review of research concerning the endogenous opioid system, now spanning over 30 years of research. It summarizes papers published during 2004 that studied the behavioral effects of molecular, pharmacological and genetic manipulation of opioid peptides, opioid receptors, opioid agonists and opioid antagonists. The particular topics that continue to be covered include the molecular-biochemical effects and neurochemical localization studies of endogenous opioids and their receptors related to behavior, and the roles of these opioid peptides and receptors in pain and analgesia; stress and social status; tolerance and dependence; learning and memory; eating and drinking; alcohol and drugs of abuse; sexual activity and hormones, pregnancy, development and endocrinology; mental illness and mood; seizures and neurologic disorders; electrical-related activity and neurophysiology; general activity and locomotion; gastrointestinal, renal and hepatic functions; cardiovascular responses; respiration and thermoregulation; and immunological responses. (c) 2005 Elsevier Inc. All rights reserved.

2/7/117 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE
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11792747 EMBASE No: 2002364609
Behavioral effects of %delta%-opioid receptor agonists: Potential antidepressants?
Broom D.C.; Jutkiewicz E.M.; Rice K.C.; Traynor J.R.; Woods J.H.
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Japanese Journal of Pharmacology (JPN. J. PHARMACOL.) (Japan) 01 SEP 2002, 90/1 (1-6)
CODEN: JJPAA ISSN: 0021-5198
DOCUMENT TYPE: Journal ; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 35

The development of selective %delta%-opioid receptor agonists has revealed some very intriguing behavioral properties. %delta%-Opioid agonists have antinociceptive, seizuregenic and convulsive properties. A number of studies have identified a novel behavioral effect of %delta% -opioid-receptor agonists, implicating a role for the %delta%-opioid receptor in depression. Early clinical experiments demonstrated that exogenously administered opioid peptides had antidepressant activity in human patients. Also, enkephalinase inhibitors, which prevent the degradation of endogenous enkephalins, produced antidepressant-like effects mediated through the %delta%-opioid receptor in animal models of depression. More recently, the selective non-peptidic %delta%-opioid agonists SNC80 and (+)BW373U86 demonstrated antidepressant-like activity in the forced swim assay in rats. These studies propose that the %delta% -opioid receptor may provide a new therapeutic target for treating human depression.

2/7/118 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE
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06714263 EMBASE No: 1996379243
Biosynthesis of %delta%-jasmin lactone (=(Z)-Dec-7-eno-5-lactone) and (Z,Z)-dodeca-6,9-dieno-4-lactone in the yeast Sporobolomyces odorus
Haffner T.; Nordsieck A.; Tressl R.
Institut fur Biotechnologie, Technische Universitat, Fachgebiet Chemisch-techn. Analyse, Seestrasse 13,D-13353 Berlin Germany
Helvetica Chimica Acta (HELV. CHIM. ACTA) (Switzerland) 1996, 79/8 (2088-2099)
CODEN: HCACA ISSN: 0018-019X
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

(all-Z)-(9,10, 12,13,15,16-sup 2Hinf 6)Octadeca-9,12,15-trienoic acid (= %alpha%-linolenic acid; Dinf 6-4) was synthesized to investigate the biochemical formation of linolenic-acid-derived aroma compounds in cultures of the yeast Sporobolomyces odorus, using an established gas chromatographic/mass spectrometric (GC/MS) method. Three compounds were identified as labeled: (Z)-dec-7-eno-5-lactone (%delta%-jasmin lactone), (Z,Z)-dodeca-6,9-dieno-4-lactone, and (2E,4Z)-hepta-%2%,4-dienoic acid. Both lactones were biosynthesized mostly under conservation of the initial configuration from their corresponding oxygenated linolenic-acid intermediates. The application of (13S,9Z,11E,15Z)-13-hydroxy(9,10,12,13,15,16-sup 2Hinf 6)octadeca-9,11,15-%tr% ienoic acid (Dinf 6-7) as a OH-functionalized precursor of %delta% -jasmin lactone allowed to gain insight into the stereochemical course of the biosynthesis to both enantiomers of this lactone. In this experiment, 88.3% of the metabolized labeled precursor was transformed under retention of the original configuration of the (R)-enantiomer. This investigation is also a contribution to a better understanding of the C=C bond isomerization steps which took place during the beta-oxidative degradation of the substrate.

2/7/119 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE
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01983790 EMBASE No: 1981034958
Muscle pathology of Duchenne dystrophy. With particular reference to 'opaque fibers'
Nonaka I.; Sugita H.
Div. Neuromuscular Res., Nat. Cent. Nerv. Ment. Musc. Disorders, Kodaira, Tokyo Japan
Advances in Neurological Sciences (ADV. NEUROL. SCI.) (Japan) 1980, 24/4 (718-728)
CODEN: SKNSA
DOCUMENT TYPE: Journal
LANGUAGE: JAPANESE SUMMARY LANGUAGE: ENGLISH

Whether the opaque (hyaline, dark, hypercontracted or hyperreactive) fibers could represent early pathological changes in muscular dystrophy or mere artifacts induced during biopsy of muscle specimen and/or its preparation has been disputed. Even if they were artifacts, their high frequency in Duchenne dystrophy would reflect increased susceptibility of the muscle membrane to trauma, which may be regarded as 'meaningful artifact'. artifactinf . To ascertain how the susceptible fibers develop to the opaque or necrotic fibers, histochemical and electron-microscopic examination was performed on biopsied specimens obtained from ten younger

patients with Duchenne dystrophy. In all biopsied specimens, scattered throughout were necrotic and opaque fibers, and occasional regenerating fibers. The opaque fibers were relatively large in caliber and stained dark with various histochemical stainings including hematoxylin and eosin, modified Gomori trichrome, NADH-%TR%, menadione-linked alphaglycerophosphate dehydrogenase (MAG), PAS, oil red O and nonspecific esterase, reflecting the condensed intracytoplasmic organelles and contractile elements due to hypercontraction. The opaque fibers were occasionally overloaded with calcium which was well demonstrated on GBHA, von Kossa and alizarin red stainings. Both types of fibers were equally hypercontracted without any preferential damage to either fiber type on ATPase with preincubation at pH's 9.4, 4.6 and 4.%2%. When the opaque fiber was examined in serial frozen sections, the hypercontracted knot was connected with either necrotic segment containing phagocytes, or intact segment with normal stainability. Electron microscopic examination revealed focal defects of sarcolemma covering the wedge-shaped '%delta% lesion' occasional plasma membrane dissociation from the basement membrane. Based on the above findings and on reviewing the literature, a hypothesis for the development of fiber necrosis in Duchenne dystrophy is proposed as follows: probable morphological membrane abnormality such as focal sarcolemmal defect or T-SR anastomoses might induce massive influx of calcium ions into the sarcoplasm followed by segmental hypercontraction recognized as hypercontracted or opaque fibers. Under high concentration of calcium ions, calcium dependent proteases such as calcium-activated neutral protease might be activated and initiate troponin digestion and %alpha%-actinin release from Z-lines. Subsequently, the muscle fibers undergo necrosis unless the early lesion is repaired, and allow phagocytes to invade the necrotic sarcoplasm.

2/7/120 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0296982 DBR Accession No.: 2002-18829 PATENT
New G-%alpha%-q protein variants, useful for analyzing and discovering agonists or antagonists of chemoreceptors, such as G protein coupled receptors involved in sensing of tastants, olfactants or pheromones - vector-mediated gene transfer and expression in host cell for use in the sensing of tastant, olfactant and pheromone
AUTHOR: YAO Y; XU H
PATENT ASSIGNEE: SENOMYX INC 2002
PATENT NUMBER: WO 200236622 PATENT DATE: 20020510 WPI ACCESSION NO.: 2002-519234 (200255)
PRIORITY APPLIC. NO.: US 243770 APPLIC. DATE: 20001030
NATIONAL APPLIC. NO.: WO 2001US32619 APPLIC. DATE: 20011024
LANGUAGE: English
ABSTRACT: DERWENT ABSTRACT: NOVELTY - An isolated variant of a Gq protein, which exhibits increased promiscuity relative to the corresponding Gq protein, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) Gq chimeric proteins comprising five amino acids from the C terminus if transducin or Galphaolf, where the chimeric proteins have binding specificity for olfactory G-protein coupled receptors (GPCRs) and taste GPCRs; (%2%) an isolated Galphaq subunit polypeptide variant comprising a polypeptide with greater than 95 % amino acid sequence identity to one of 26 sequences, given in the specification; (3) isolated nucleic acid sequences encoding the Gq variant proteins or Gq chimeric proteins; (4) an antibody that selectively binds to the variant Gq %alpha% protein but not to the native Gq %alpha% protein; (5) an expression vector comprising the nucleic acid operably linked to a promoter that functions in mammalian cells or Xenopus oocytes; (6) a host cell comprising the expression vector; (7) identifying a compound that modulates sensory signaling in sensory cells comprising: (a) contacting the compound with a cell expressing the Gq variant protein; and (b) determining the functional effect of the compound upon the Gq protein variant; (8) identifying a compound that interacts with the Gq variant protein comprising: (a) contacting the Gq variant protein with a test compound; and (b) detecting a binding interaction between the compound and the Gq protein variant; and (9) an artificial array of GPCRs functionally coupled to the Gq variant protein, where the array is a model of a native arrangements of GPCRs. BIOTECHNOLOGY - Preferred Protein: The variant Gq protein is of a subclass comprising Galphaq, Galpha11, Galpha14 or Galpha15/ Galpha16. Preferably, the Gq protein is of the Galphaq subclass. The variant comprises a point mutation (particularly glycine to aspartic acid change at position 66) that increases promiscuity. The variant Gq protein is derived from a mammalian Gq protein, specifically from a mouse or human Gq protein. Five amino acids in the C terminus of the Gq protein are replaced by 5 amino acids from the C terminus of Galphaolf or transducin. The C terminal substitution increases promiscuity of the variant Gq protein as compared to the corresponding native Gq protein. The variant Gq protein further comprises a point mutation that acts in addition to the C-terminal substitution to increase promiscuity of the variant as compared to the native protein. Preferably, the Galphaq subunit polypeptide variant comprises a polypeptide with greater than 95 % amino acid sequence identity to any of 14 mouse sequences (e.g. mGq, mGq(DELTAN), mGq(HA), mGq(%DELTA%-HA), mGq(DELTAN-HVD-HA), mGq(DELTAN-HVD-HA)-t5, mGq(DELTAN-HVD-HA)-t44, mGq(%DELTA% -HVG-HA), mGq(HVG-HA), mGq(D-HA), mGq(HVD-HA), mGq(HVG-HA)-t5, mGq(HVD-HA)-t5, or mGq(DELTAN-HVD-HA)-olf5) or 12 human sequences (e.g. hGq, hGq(DELTAN), hGq(DELTAN-HVD-HA), hGq(DELTAN-HVD-HA)-t5, hGq(DELTAN-HVD-HA)-t44, hGq(D-HA), hGq(HVD-HA), hGq(HVG-HA)-t5, hGq(HVD-HA)-t5, hGq(DELTAN-HVD-HA)-olf5, hGq(HVG-HA)-t5 or hGq(HVD-HA-t5) comprising 359 or 353 amino acids, given in the specification. The nucleic acid sequence encoding the Galphaq protein variant comprises a nucleic acid encoding a polypeptide with greater than 80 - 95 % amino acid sequence identity to any of the mouse or human sequences. Preferred Method: In method (7), the cell expressing the Gq variant protein is a transfected sensory cell or Xenopus oocyte. The functional effect is determined by: (a) measuring changes in intracellular cAMP, inositol triphosphate (IP3) or Ca2+; (b) measuring binding of a radiolabeled GTP to the variant Gq protein; (c) measuring changes in the electrical activity of the cells expressing the Gq variant protein; or (d) observing modification of an intracellular effector enzyme. The Gq variant protein comprises sequences of a native Gq protein from a human or rodent. In method (8), the Gq variant protein is (covalently) linked to solid phase. The compound in methods (7) and (8) is selected from agonists, antagonists, antibodies, small molecules and proteins. Preferred Array: The native arrangement is an arrangement of olfactory receptors (Ors) typically seen in a mammalian nose or taste receptors (TRs) typically seen on a mammalian tongue. The TRs include a type of %TR%, e.g. bitter, sweet, salty, unami or sour taste receptors. Preparation: The variant can be prepared by standard recombinant gene technology USE - The variant is used to identify a compound that modulates sensory signaling in sensory cells and to identify a compound that interacts with the Gq variant protein (claimed). The Gq protein variant is useful for analyzing and discovering agonists or antagonists of chemoreceptors, such as G protein coupled receptors involved in sensing of tastants, olfactants or pheromones. EXAMPLE - No relevant example is given. (32 pages)

2/7/121 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0035051 DBR Accession No.: 85-05840
A diterepene related to erythroxydiol from Helichrysum refluxum - erythroxa- 3,15-dien- 18-oic acid isolation and structure determination
AUTHOR: Bohlmann F; Hartono L; Jakupovic J
CORPORATE SOURCE: Institute for Organic Chemistry, Technical University of Berlin, D-1000 Berlin 12, Germany.
JOURNAL: Phytochemistry (24, 3, 611-12) 1985
CODEN: PYTCAS
LANGUAGE: English
ABSTRACT: The crude extract of the aerial parts of Helichrysum refluxum was separated by column chromatography. A fraction eluted with petrol gave bicyclogermacrene, cadinene, aromadendrene, %alpha% -cedrene and squalene. TLC of fractions eluted with ether-petrol (1:3) gave %tracylobanic% acid, ent-kaurenic acid, beyeren- 19-oic acid, lupeol

and its %delta% /12/-isomer, and a new diterpene acid related to erythroxydiol Z. A fraction obtained with ether-petrol (1:1) yielded oleanolic acid, %2%,3-dihydroaromaticin and carabron. The structure of the new diterpene acid (1) was elucidated from PMR, CMR and NOE data. The compound is erythroxa- 3,15-dien- 18-oic acid. (6 ref)
15feb07 09:05:49 User219511 Session D675.4
$1.98 0.584 DialUnits File155
$9.46 43 Type(s) in Format 7
$9.46 43 Types
$11.44 Estimated cost File155
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$397.65 55 Types
$447.22 Estimated cost File34
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$4.50 2 Types
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$2.23 0.188 DialUnits File73
$16.50 5 Type(s) in Format 7
$16.50 5 Types
$18.73 Estimated cost File73
$1.10 0.048 DialUnits File357
$8.20 2 Type(s) in Format 7
$8.20 2 Types
$9.30 Estimated cost File357
OneSearch, 6 files, 3.300 DialUnits FileOS
$0.53 TELNET
$525.74 Estimated cost this search
$533.17 Estimated total session cost 5.721 DialUnits
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